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Arizona Corporation Commission

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JAN 27 2017

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Via Overnight Mail

January 26, 2017

Arizona Corporation Commission
Attn: Docket Control
1200 West Washington Street
Phoenix, AZ 85007

Re: Docket No. E-01345A-16-0036
E-01345A-16-0123

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AZ CORP COMMISSION
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Dear Sir or Madam:

Please find enclosed the original and thirteen (13) copies each of the DIRECT TESTIMONY AND EXHIBITS OF STEPHEN J. BARON (COST-OF-SERVICE AND RATE DESIGN) for filing in the above-referenced docket.

All parties of record have been served.

Very Truly Yours,

Kurt J. Boehm, Esq.

Jody Kyler Cohn, Esq.

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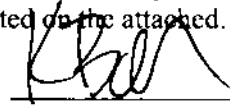
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KJB/kew
Attachments

CERTIFICATE OF SERVICE

I hereby certify that true copy of the foregoing was served by electronic mail (when available) or regular U.S. mail the 27th day of January, 2017 on the parties listed on the attached.



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**BEFORE THE
ARIZONA CORPORATION COMMISSION**

COMMISSIONERS

**SUSAN BITTER SMITH – CHAIRMAN
BOB STUMP
BOB BURNS
DOUG LITTLE
TOM FORESE**

**IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR)
A HEARING TO DETERMINE THE FAIR VALUE)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-16-0036
FOR RATEMAKING PURPOSES, TO FIX A JUST)
AND REASONABLE RATE OF RETURN)
THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN)**

**DIRECT TESTIMONY
AND EXHIBITS
OF
STEPHEN J. BARON
(COST OF SERVICE AND RATE DESIGN)**

**ON BEHALF OF THE
KROGER CO.**

**J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA**

January 2017

BEFORE THE
ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR)
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BEFORE THE
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IN THE MATTER OF THE APPLICATION OF)
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DESIGNED TO DEVELOP SUCH RETURN)

DIRECT TESTIMONY OF STEPHEN J. BARON

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Stephen J. Baron. My business address is J. Kennedy and Associates,
Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell,
Georgia 30075.

Q. What is your occupation and by who are you employed?

A. I am the President and a Principal of Kennedy and Associates, a firm of utility rate,
planning, and economic consultants in Atlanta, Georgia.

Q. Please describe briefly the nature of the consulting services provided by
Kennedy and Associates.

1 A. Kennedy and Associates provides consulting services in the electric and gas utility
2 industries. Our clients include state agencies, large consumers of electricity and other
3 market participants. The firm provides expertise in system planning, load forecasting,
4 financial analysis, cost-of-service, and rate design. Current clients include the
5 Georgia and Louisiana Public Service Commissions, and consumer groups
6 throughout the United States.

7
8 **Q. Please state your educational background.**

9 A. I graduated from the University of Florida in 1972 with a B.A. degree with high
10 honors in Political Science and significant coursework in Mathematics and Computer
11 Science. In 1974, I received a Master of Arts Degree in Economics, also from the
12 University of Florida. My areas of specialization were econometrics, statistics, and
13 public utility economics. My thesis concerned the development of an econometric
14 model to forecast electricity sales in the State of Florida, for which I received a grant
15 from the Public Utility Research Center of the University of Florida. In addition, I
16 have advanced study and coursework in time series analysis and dynamic model
17 building.

18
19 **Q. Please describe your professional experience.**

20 A. I have more than forty years of experience in the electric utility industry in the areas
21 of cost and rate analysis, forecasting, planning, and economic analysis.

1 Following the completion of my graduate work in economics, I joined the staff of the
2 Florida Public Service Commission in August of 1974 as a Rate Economist. My
3 responsibilities included the analysis of rate cases for electric, telephone, and gas
4 utilities, as well as the preparation of cross-examination material and the preparation
5 of staff recommendations.

6
7 In December 1975, I joined the Utility Rate Consulting Division of Ebasco Services,
8 Inc. as an Associate Consultant. In the seven years I worked for Ebasco, I received
9 successive promotions, ultimately to the position of Vice President of Energy
10 Management Services of Ebasco Business Consulting Company. My responsibilities
11 included the management of a staff of consultants engaged in providing services in
12 the areas of econometric modeling, load and energy forecasting, production cost
13 modeling, planning, cost-of-service analysis, cogeneration, and load management.

14
15 I joined the public accounting firm of Coopers & Lybrand in 1982 as a Manager of
16 the Atlanta Office of the Utility Regulatory and Advisory Services Group. In this
17 capacity I was responsible for the operation and management of the Atlanta office.
18 My duties included the technical and administrative supervision of the staff,
19 budgeting, recruiting, and marketing as well as project management on client
20 engagements. At Coopers & Lybrand, I specialized in utility cost analysis,
21 forecasting, load analysis, economic analysis, and planning.

1 In January 1984, I joined the consulting firm of Kennedy and Associates as a Vice
2 President and Principal. I became President of the firm in January 1991.

3
4 During the course of my career, I have provided consulting services to numerous
5 industrial, commercial, Public Service Commission and utility clients, including
6 international utility clients.

7
8 I have presented numerous papers and published an article entitled "How to Rate
9 Load Management Programs" in the March 1979 edition of "Electrical World." My
10 article on "Standby Electric Rates" was published in the November 8, 1984 issue of
11 "Public Utilities Fortnightly." In February of 1984, I completed a detailed analysis
12 entitled "Load Data Transfer Techniques" on behalf of the Electric Power Research
13 Institute, which published the study.

14
15 I have presented testimony as an expert witness in Arizona, Arkansas, Colorado,
16 Connecticut, Florida, Georgia, Indiana, Kentucky, Louisiana, Maine, Michigan,
17 Minnesota, Maryland, Missouri, Montana, New Jersey, New Mexico, New York,
18 North Carolina, Ohio, Pennsylvania, Texas, Utah, Virginia, West Virginia,
19 Wisconsin, Wyoming, before the Federal Energy Regulatory Commission ("FERC"),
20 and in United States Bankruptcy Court. A list of my specific regulatory appearances
21 can be found in Baron Exhibit ____ (SJB-1).

1 **Q. Have you previously presented testimony before the Arizona Corporation**
2 **Commission?**

3 A. Yes. I presented testimony in four previous Arizona Public Service Company rate
4 cases on behalf of Kroger Co. in 2004, 2006, 2008 and in 2011 (Docket Nos. E-
5 01345-03-0437, E-01345A-05-0816, E-01345A-08-0172, and E-01345A-11-0224). I
6 have also presented testimony in a Tucson Electric Power Company proceeding in
7 1981 on behalf of the Commission (Docket No. U-1933I) and in 2008, 2012 and 2016
8 on behalf of Kroger Co. (Docket Nos. E-01933A-07-0402, E-01933A-05-0650, E-
9 01933A-12-0291 and E-01933A-15-0322).

10
11 **Q. On whose behalf are you testifying in this proceeding?**

12 A. I am testifying on behalf of the Kroger Co. Kroger has approximately 36 stores in the
13 APS service territory operating under the names Fry's, Fred Meyer and Smith's.
14 These stores consume in excess of 100 million kWh per year on the APS system.

15
16 **Q. What is the purpose of your testimony?**

17 A. I will be presenting testimony on a number of cost of service, revenue allocation and
18 rate design issues that affect Kroger's service on APS General Service rate schedules,
19 primarily E-32 Medium ("M") and E-32 Large ("L").

20
21 With regard to cost of service, I respond to the testimony of APS witness Leland
22 Snook who presents the Company's Average and Excess Demand ("AED") class cost

1 of service study. As I explain, for the purposes of this case, I have accepted the
2 Company's proposed AED methodology, though I believe that the same 4 CP method
3 used by APS for jurisdictional cost allocation should also be used to allocate retail
4 jurisdictional costs to rate classes. However, my review of the Company's filed class
5 cost of service study indicates that there is an error in the treatment of expenses
6 associated with Experimental Rate Rider AG-1 ("AG-1"). I will discuss the error,
7 which has the effect of understating the earned Rate of Return for Rate Schedules E-
8 32 L (401+ kW), E-34 and E-35. I will present a corrected class cost of service study.

9
10 I will also respond to Company witness Charles Miessner on the allocation of the
11 overall revenue increase to rate classes and E-32 rate design. While the Company
12 recognizes that its rates are not aligned with cost of service due to the very large
13 subsidies being paid by E-32 customers to other rate classes, the Company has not
14 sufficiently addressed this problem in its proposed revenue allocation in this case.
15 Even within the E-32 rate class, the Company has not reasonably apportioned the
16 increases in a manner that addresses the subsidies paid by these rate schedules. I will
17 recommend an alternative approach that modifies the Company's proposed increases
18 among the three main E-32 rate schedules (E-32 S, E-32 M and E-32 L) in a manner
19 that uniformly reduces subsidies among these three general service rates. This
20 proposal does not change the Company's proposed rate spread allocation between the
21 General Service rates overall and other rate classes, specifically the Residential class.

1 I also address specific rate design issues applicable to Schedule E-32 L. Specifically,
2 I will recommend an alternative rate design that more closely tracks cost of service.
3 Mr. Miessner addresses residential rate design in great detail in his testimony, arguing
4 for a more cost based rate design that tracks cost and sends appropriate price signals
5 to residential customers that are tied to the costs incurred in providing service. In a
6 similar manner, E-32 rate design should also be aligned with cost of service so that
7 fixed, demand related costs are properly recovered in the demand charges of the E-32
8 L rate. I also address the Company's proposal to implement a multisite rate discount
9 for E-32 L customers who have a total load on this rate schedule of at least 5,000 kW.
10 I support the Company's proposal, which permits large, multi-site customers to
11 receive similar rate treatments for the generation portion of their charges as customers
12 on rate General Service Extra Large rates.

13
14 Finally, I address the Company's proposal to terminate the AG-1 rate program. This
15 program has permitted larger customers such as Kroger to access the market in an
16 innovative manner and should be continued so that large customers in Arizona have
17 opportunities to pursue market power at their own risk.

18
19 **Q. Would you please summarize your testimony and recommendations?**

20 **A.** My recommendations are as follows:

- 21
22 ○ The Company's filed AED class cost of service study incorrectly assigned
23 fuel expenses to rate classes that had customers who took service pursuant to
24 Rate AG-1 during the test year. The Company has filed its case under the

1 assumption that Rate AG-1 would be terminated, yet allocated AG-1 fuel
2 expenses to Rates E-32 M, E-32 L, E-34 and E-35, in addition to these rate
3 classes' share of total system fuel costs. The Commission should rely on a
4 corrected version of the cost of service study that I present in my testimony.
5

- 6 ○ The Company's proposed rate spread should be modified so that the
7 percentage reduction in subsidies for rates E-32 S, E-32 M and E-32 L are
8 uniform. While each of these rate classes is paying substantial subsidies to
9 other rate classes at present rates, the Company has only proposed a reduction
10 in the subsidies paid by rate E-32 S. A uniform percentage in subsidies for all
11 three of these rates is more reasonable and should be adopted by the
12 Commission.
13
- 14 ○ In the likely event that the Commission approved revenue increase is lower
15 than the amount requested by APS in its filing, the 50% of the reduction
16 should be applied to rate classes that are currently above cost of service, with
17 the remaining 50% applied to all rate classes on a uniform basis.
18
- 19 ○ The Company's proposed rate design for Rate E-32 L should be modified to
20 reduce the proposed increase to the energy charges of the rate and increase the
21 demand charges. The Company's proposal results in a substantial disparity
22 between the amount of non-fuel energy charges and the non-fuel cost of
23 service.
24
- 25 ○ APS's proposal to implement an aggregation discount for Rate E-32 L with
26 5,000 kW or more of total load on the rate should be adopted. This discount,
27 which applies to the unbundled generation charges, allows E-32 L customers
28 with multiple facilities on the rate to obtain generation related pricing similar
29 to that available to the Company's extra large customers.
30
- 31 ○ The Company's proposal to terminate Rate AG-1, rather than attempting to
32 modify it, should not be accepted. Customers, such as Kroger, have
33 developed a significant amount of experience participating in the market as a
34 result of the rate and should be permitted to continue obtaining a portion of
35 their load under market based pricing. To the extent that modifications are
36 made to Rate AG-1 in response to the Company's concerns, these
37 modifications should be supported by cost analysis and not be an
38 unreasonable hindrance to market participation.
39

40 II. REVENUE ALLOCATION AND COST OF SERVICE 41

1 **Q. Have you reviewed the Company's 12 month ending December 2015 test year**
2 **cost of service study filed in this proceeding?**

3 A. Yes. The Company is utilizing a traditional Average and Excess Demand ("AED")
4 class cost of service study in this proceeding to allocate production related demand
5 costs. The Company is continuing to rely on the 4 CP methodology to allocate
6 jurisdictional costs.

7
8 **Q. Do you believe that the Company's proposal to use the AED method for retail**
9 **class cost of service allocation provides a reasonable basis to evaluate the**
10 **relationship between the rates being charged each rate class and the underlying**
11 **cost of providing service to these customers?**

12 A. Yes, while I would prefer the 4 CP method in this case for class cost of service, it is
13 appropriate to use the AED method for the purpose of assessing the reasonableness of
14 the Company's proposed allocation of the revenue increase to rate schedule. The
15 AED method is a traditional cost of service method that recognizes the role of both
16 customer kW demand and energy in cost causation. Unlike other weighted demand
17 and energy methodologies, the AED method gives a reasonable weighting to the
18 importance of class demands in the allocation of the system's fixed production costs
19 to rate classes.

20
21 **Q. How should the results of the Company's class cost of service study be used in**
22 **this case?**

1 A. The purpose of an embedded, fully allocated class cost of service study is to assess
2 the reasonableness of a utility's rates, in relation to the underlying cost of providing
3 service to the customers on each rate class. As a matter of policy, it is both efficient
4 and equitable to establish rates on the basis of the cost of service and, to the extent
5 feasible, to move rates towards cost of service in a rate case in which a utility is
6 requesting a change in revenues. In other words, a rate case, such as the current APS
7 proceeding, is an opportunity to evaluate the Company's rates and make incremental
8 adjustments so that, over time, each class will pay rates reflecting cost of service. In
9 so doing, rates paid by each customer will provide efficient "price signals" reflecting
10 the resource cost of meeting customer demands. In addition, cost based rates provide
11 an equitable basis to assign the Company's overall revenue requirement to customers.
12 In this manner, customers in one rate class do not pay or receive unjustified monetary
13 subsidies from other rate customers.

14
15 **Q. Have you identified any problems with the Company's cost study?**

16 A. Yes. While I accept the Company's class cost of service study methodologies, I have
17 identified a specific problem with the treatment of AG-1 expenses and a
18 corresponding problem with the allocation of fuel and purchased power expense.
19 This problem has the effect of over-allocating energy related costs (fuel, purchased
20 power, including AG-1 related purchase costs) to rate schedules that had customers
21 utilizing AG-1 during the test year. This results in an under-allocation of these
22 expenses to all other rate schedules.

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Q. What is the impact of this allocation error?

A. The misallocation of these expenses results in an understatement of the earned rate of return (“ROR”) at present rates for rates E-32 L, E-34 and E-35 and an overstated ROR for all other rate classes. While other rate classes did have customers participating in the AG-1 program during the test year, these three classes had the bulk of the participation. The net impact of this error on other rate classes, whether they had AG-1 customers or not, was an understatement of present rate ROR.

Q. Would you generally explain the error that the Company made in its class cost allocation study with regard to the treatment of AG-1 expenses?

A. The Company filed its case under the assumption that it would no longer offer AG-1 to general service customers. Thus, it was necessary to pro-form out the effects of AG-1 in the test year and replace it with the level of fuel and purchased power expense that would have been incurred without AG-1.

The Company also included pro-forma adjustments to convert its test year level of fuel and purchased power costs (including the costs of serving the AG-1 mWh sales) to a level reflecting “normalized 2017 fuel and purchased power costs.”

In simple terms, the test year level of fuel and purchased power costs to serve all mWh except AG-1 mWh and the AG-1 costs (total test year book expenses) were

1 converted to a normalized 2017 level of fuel and purchased power expenses. This
2 normalized level of expenses should have been allocated to each customer class on
3 the basis of energy (including the energy that was associated with AG-1
4 purchases).

5
6 The Company's class cost of service study, however, did not reflect this
7 methodology. Rather, the test year fuel and purchased power expenses were
8 allocated to each customer class based on mWh energy that included AG-1 mWh.
9 The Company then inexplicably allocated the test year level of AG-1 purchased
10 power expenses through a direct assignment only to those rate classes that had AG-
11 1 sales. Finally, the pro-forma adjustments to convert the test year book level of
12 expense to the 2017 normalized level of expense were also allocated to all
13 customer classes on the basis of energy, including AG-1 energy. On a total retail
14 basis, the final fuel and purchased power expenses reflect the desired level of cost.
15 However, due to the direct assignment of the AG-1 book level expenses to only
16 rate classes with AG-1 energy sales, the Company over-allocated costs to these
17 AG-1 rate classes and under-allocated costs to all other classes.

18
19 To illustrate this error, assume that the test year level of fuel expense for the non-
20 AG-1 rate classes was \$80 million, and the level of AG-1 fuel expense was \$20
21 million for a total test year level of fuel expense of \$100 million. Now assume that
22 the 2017 normalized level of fuel expense is \$90 million. The Company would

1 include a (\$10 million) pro-forma adjustment to convert the test year book expense
2 to the normalized level. That is essentially what APS did on a total retail level.
3 However, for the class cost of service study the Company allocated the \$80 million
4 to all classes, including the former AG-1 energy in the AG-1 rate classes. It then
5 directly assigned the \$20 million test year AG-1 expenses to the AG-1 rate classes.
6 Finally, the Company allocated the (\$10 million) pro-forma adjustment to all rate
7 classes, including the AG-1 classes. The net result is that the AG-1 classes were
8 assigned test year costs twice, resulting in excess cost and all of the other classes
9 were under-allocated costs.
10

11 **Q. Can you demonstrate that the errors you discussed above have over-allocated**
12 **fuel and purchased power expenses to a number of general service rate classes?**

13 A. As I discussed above, the Company allocated its pro-formed test year fuel and
14 purchase expenses that reflected an elimination of AG-1 in the test year. Since AG-1
15 has been removed from the test year, the total adjusted fuel and purchase expenses
16 should have been allocated to each rate class on an energy allocation basis, which
17 reflects test year energy at generation voltage for each class. This energy allocator
18 includes the energy associated with AG-1 purchases by a number of general service
19 rate classes. The cost of service study incorrectly assigned AG-1 costs to general
20 service rate classes even though it is assumed in the revenue requirement that there
21 are no AG-1 purchase expenses in the test year.
22

1 The amount of fuel and purchase expense allocated to all rate classes, including those
2 that had AG-1 purchases in the test year, was understated. The net effect was an
3 overall under-allocation of fuel and purchase expenses for all rate classes except E-32
4 L, E-34 and E-35 that each received an over-allocation of expenses.

5
6 The impact of this error can easily be seen in the energy revenue requirements
7 calculated by the Company in its cost of service study. Mr. Snook's workpapers
8 "LRS_WP04DR" contain the summary results of his functionalized class cost of
9 service study. Baron Exhibit__(SJB-2) contains excerpts from these workpapers for
10 Total Retail, the Residential class and Rates E-32 XS, E-32 M, E-32 L, E-34 and E-
11 35. Line 23 of each page shows the corresponding functionalized energy revenue
12 requirement for each rate class that is produced by the Company's class cost of
13 service study. For Total Retail, the energy related revenue requirement is
14 \$1,091,553,938.

15
16 **Q. What does the energy related revenue requirement represent?**

17 A. These costs represent the total amount of energy related costs that the Company has
18 assigned to each rate class (booked test year amounts plus pro-forma adjustments,
19 including the elimination of test year AG-1 expenses). Dividing these total costs by
20 the corresponding kWh sales for each class produces the unit energy cost for the rate
21 class. Since energy related costs are allocated to rate classes on the basis of energy
22 sales, adjusted for losses to the generation level, rate classes that are served at

1 secondary voltages like the residential class and very small general service classes
2 should have somewhat higher than average unit energy costs/kWh than high voltage
3 classes served at primary and transmission voltages like Rates E-34 and E-35 (extra-
4 large general service customers). Since Rates E-32 M and E-32 L also have
5 customers served at primary and transmission voltages (as well as secondary), these
6 classes would be expected to have lower unit energy costs as well.

7
8 **Q. Do the results of the Company's cost of service study show these expected**
9 **results?**

10 A. No. Table 1 below summarizes the unit energy costs for each of the major rate
11 classes and each of the general service classes, based on the Company's cost of
12 service study. As can be seen, the Company's cost study shows that Rates E-32 L, E-
13 34 and E-35 have higher average energy costs per kWh than the retail average and
14 higher costs per kWh than the residential class, whose customers are served at
15 secondary voltages that have the highest losses on the system. Clearly, this does not
16 make sense.

Table 1 Energy Unit Cost of Service - APS As-Filed Class Cost of Service Study			
	Energy Revenue <u>Requirements</u>	mWh at Meter with <u>Net Solar</u>	Unit Energy <u>Cost</u>
RESIDENTIAL	508,114,146	13,158,042	3.8616
GENERAL SERVICE	565,599,454	14,115,815	4.0068
E-221 (Water Pumping)	12,206,177	336,064	3.6321
STREET LIGHTING	4,889,153	150,810	3.2419
DUSK TO DAWN	745,008	23,006	3.2383
TOTAL GENERAL SVC	565,599,454	14,115,815	4.0068
E-20 (Church Rate)	1,439,249	38,746	3.7146
E-32 TOU (0-100 kW)	1,349,184	36,912	3.6551
E-32 TOU (101-400 kW)	2,649,675	72,164	3.6717
E-32 TOU (401+ kW)	8,804,377	245,946	3.5798
School TOU	3,933,532	105,093	3.7429
E-30, E-32 (0-100 kW)	154,358,128	4,100,274	3.7646
E-32 (101-400 kW)	121,590,531	3,229,302	3.7652
E-32 (401+ kW)	137,996,736	3,287,320	4.1978
E-34	35,317,160	816,366	4.3261
E-35	98,160,881	2,183,692	4.4952
TOTAL RETAIL	1,091,553,938	27,783,737	3.9288

Q. Did this erroneous result occur because of the extra allocation of AG-1 expenses to E-32 M, E-32 L, E-32TOU L, E-34 and E-35?

1 A. Yes. The Company intended to pro-form out the impact of AG-1 from the test year.
2 While it did so on an overall total revenue requirements basis, it did not properly pro-
3 form out the impact of AG-1 on the class cost of service study results.¹

4
5 **Q. Have you developed a corrected version of your Table 1, showing the unit energy**
6 **costs for each rate class?**

7 A. Yes. Table 2 below summarizes these results. These results are based on the energy
8 revenue requirements corrected for the allocation of AG-1 related purchased power
9 expenses. These energy related revenue requirements are developed in my corrected
10 class cost of service study, which I discuss below. As can be seen, the unit energy
11 costs for the larger rate classes are now below the retail average, as would be expected
12 in a correct study.

¹ As I explained earlier, because the amount of AG-1 load on Rate E-32TOU L is very small, this rate class benefited from the allocation error in a manner similar to the residential class and other general service classes.

Table 2			
Energy Unit Cost of Service - Corrected Class Cost of Service Study			
	<u>Energy Revenue Requirements</u>	<u>mWh at Meter with Net Solar</u>	<u>Unit Energy Cost</u>
RESIDENTIAL	528,058,009	13,158,042	4.0132
GENERAL SERVICE	544,973,728	14,115,815	3.8607
E-221 (Water Pumping)	12,680,331	336,064	3.7732
STREET LIGHTING	5,069,370	150,810	3.3614
DUSK TO DAWN	772,500	23,006	3.3578
 TOTAL GENERAL SVC	 544,973,728	 14,115,815	 3.8607
E-20 (Church Rate)	1,496,486	38,746	3.8623
E-32 TOU (0-100 kW)	1,401,043	36,912	3.7956
E-32 TOU (101-400 kW)	2,752,607	72,164	3.8144
E-32 TOU (401+ kW)	9,148,053	245,946	3.7195
School TOU	4,082,174	105,093	3.8843
E-30, E-32 (0-100 kW)	160,339,558	4,100,274	3.9105
E-32 (101-400 kW)	124,553,757	3,229,302	3.8570
E-32 (401+ kW)	126,184,746	3,287,320	3.8385
E-34	31,688,036	816,366	3.8816
E-35	83,327,269	2,183,692	3.8159
 TOTAL RETAIL	 1,091,553,938	 27,783,737	 3.9288

Q. Have you developed a corrected version of the Company's cost of service study?

A. Yes. Baron Exhibit__(SJB-3) provides a summary of the corrected class cost of service study that corrects for the specifically assigned AG-1 expenses from Rates E-32 M, E-32 L, E-32TOU L, E-34 and E-35. This cost of service study uses the identical methodologies as used by APS, except for corrections that I have made to fix the problems with the treatment of AG-1 expenses.

1

2 **Q. Would you summarize the results of your corrected AED class cost of service**
3 **study?**

4 A. Yes. Table 3 below summarizes the corrected cost of service results for each rate
5 class and also provides a comparison to the Company's as-filed cost study results. A
6 good measure of this rate versus cost relationship is the relative class rates of return at
7 present rates. This measurement, which is the ratio of a class's rate of return relative
8 to the average retail earned rate of return, provides a good summary of the rate versus
9 cost relationship, based on the results of the Company's AED cost of service study.

1

Table 3 Corrected Class Cost of Service Results				
	Corrected AED Study		APS As-Filed AED Study	
	Rate of Return ("ROR")	Relative ROR	Rate of Return ("ROR")	Relative ROR
RESIDENTIAL	1.97%	0.43	2.26%	0.49
GENERAL SERVICE	9.54%	2.06	8.99%	1.94
E-221 (Water Pumping)	2.86%	0.62	3.33%	0.72
STREET LIGHTING	6.05%	1.30	6.20%	1.34
DUSK TO DAWN	8.00%	1.72	8.05%	1.73
TOTAL GENERAL SVC	9.54%	2.06	8.99%	1.94
E-20 (Church Rate)	-2.57%	(0.55)	-2.37%	(0.51)
E-32 TOU (0-100 kW)	17.35%	3.74	17.89%	3.86
E-32 TOU (101-400 kW)	12.16%	2.62	12.76%	2.75
E-32 TOU (401+ kW)	9.97%	2.15	10.62%	2.29
School TOU	3.49%	0.75	3.80%	0.82
E-30, E-32 (0-100 kW)	12.56%	2.71	12.98%	2.80
E-32 (101-400 kW)	9.54%	2.05	9.88%	2.13
E-32 (401+ kW)	8.24%	1.78	6.67%	1.44
E-34	4.72%	1.02	2.61%	0.56
E-35	4.26%	0.92	0.29%	0.06
TOTAL RETAIL	4.64%	1.00	4.64%	1.00

2

3

4

5

6

7

As can be seen, the earned RORs at present rates for the three rate classes (E-32 L, E-34 and E-35) that had the largest amount of AG-1 load during 2015 are significantly higher when the cost study is corrected. For all other rate classes, the earned ROR is lower under the corrected cost study.

1 **Q. How do these relative rates of return results compare to the results in the**
2 **Company's 2008 and 2011 rate cases (Docket Nos. E-01933A-07-0402 and E-**
3 **01345A-11-0224)?**

4 **A. In the 2008 rate case, the APS cost of service study showed that the residential class**
5 **relative ROR was 75% under the then existing present rates, while general service**
6 **customers were paying a relative rate of return that was approximately 130% of the**
7 **system average. In the 2011 rate case, the APS cost of service study showed that the**
8 **residential class had a relative ROR of only 73% and the general service rate class**
9 **was paying a rate of return that was 143% of the retail average. Essentially, there has**
10 **been no progress made in moving rates towards cost of service in the last two APS**
11 **rate cases.**

12
13 **Q. Have you computed the dollar subsidies being paid and received by each rate**
14 **class at present rates, based on the results of your 2015 corrected cost of service**
15 **study, presented in Exhibit__(SJB-3)?**

16 **A. Yes. Table 4 below shows the dollar subsidies paid and received at present rates. As**
17 **can be seen, the residential class is receiving (shown as a positive value) over \$184**
18 **million in subsidies at present rate from other rate classes. At the same time, general**
19 **service customers pay annual subsidies of over \$183 million. These results are based**
20 **on my corrected AED class cost of service study that fixes the incorrect allocation of**
21 **AG-1 expenses.**

Table 4 Dollar Subsidies Paid and Received by Rate Class at Present Rates (negative value indicates a receipt of a subsidy)			
	Present <u>Revenues</u>	Present <u>Subsidy</u>	Subsidy As a % <u>of Revenues</u>
RESIDENTIAL	1,486,578,000	184,881,978	12.4%
GENERAL SERVICE	1,343,926,000	(183,434,231)	-13.6%
E-221 (Water Pumping)	28,739,000	1,814,859	6.3%
STREET LIGHTING	21,082,000	(1,628,596)	-7.7%
DUSK TO DAWN	8,578,000	(1,634,010)	-19.0%
 TOTAL GENERAL SVC	 1,343,926,000	 (183,434,231)	 -13.6%
E-20 (Church Rate)	4,068,500	2,104,056	51.7%
E-32 TOU (0-100 kW)	4,168,000	(1,198,955)	-28.8%
E-32 TOU (101-400 kW)	6,774,000	(1,273,755)	-18.8%
E-32 TOU (401+ kW)	21,208,000	(2,817,194)	-13.3%
School TOU	11,345,000	546,080	4.8%
E-30, E-32 (0-100 kW)	511,453,500	(112,292,007)	-22.0%
E-32 (101-400 kW)	308,825,000	(42,716,986)	-13.8%
E-32 (401+ kW)	272,178,000	(27,059,554)	-9.9%
E-34	59,842,000	(135,682)	-0.2%
E-35	144,064,000	1,409,766	1.0%
 TOTAL RETAIL	 2,888,903,000	 -	

Q. Has APS made a rate spread proposal in this case that adequately addresses the substantial disparities between present rates and cost of service?

A. Not in my opinion. Table 5 below shows the Company's proposed rate schedule revenue increases and the resulting subsidies that will exist at these proposed rates. Also shown, for comparison purposes, are the subsidies at present rates and the percentage change in subsidies.

Table 5
Dollar Subsidies Paid and Received by Rate Class at Proposed Rates
(negative value indicates a receipt of a subsidy)

	APS Proposed Increase		APS Proposed	Present	% Changes
	\$	%	Subsidy	Subsidy	
RESIDENTIAL	286,896,106	19.3%	172,736,795	184,881,978	-6.6%
GENERAL SERVICE	138,616,065	10.3%	(173,936,602)	(183,434,231)	-5.2%
E-221 (Water Pumping)	4,892,056	17.0%	962,577	1,814,859	-47.0%
STREET LIGHTING	2,129,751	10.1%	833,913	(1,628,596)	-151.2%
DUSK TO DAWN	866,592	10.1%	(564,357)	(1,634,010)	-65.5%
 TOTAL GENERAL SVC	 138,616,065	 10.3%	 (173,936,602)	 (183,434,231)	 -5.2%
E-20 (Church Rate)	828,587	20.4%	2,434,299	2,104,056	15.7%
E-32 TOU (0-100 kW)	358,890	8.6%	(1,184,618)	(1,198,955)	-1.2%
E-32 TOU (101-400 kW)	791,383	11.7%	(1,394,966)	(1,273,755)	9.5%
E-32 TOU (401+ kW)	2,287,141	10.8%	(3,016,242)	(2,817,194)	7.1%
School TOU	1,745,095	15.4%	679,643	546,080	24.5%
E-30, E-32 (0-100 kW)	44,050,641	8.6%	(100,148,383)	(112,292,007)	-10.8%
E-32 (101-400 kW)	36,055,946	11.7%	(44,258,355)	(42,716,986)	3.6%
E-32 (401+ kW)	30,480,853	11.2%	(27,831,425)	(27,059,554)	2.9%
E-34	6,488,055	10.8%	168,521	(135,682)	-224.2%
E-35	15,529,473	10.8%	614,923	1,409,766	-56.4%
 TOTAL RETAIL	 433,400,570	 15.0%		-	

Q. What conclusions have you made regarding the Company's proposed rate spread?

A. The APS proposal is not reasonable and accomplishes only a very insignificant reduction in subsidies. In particular, general service customers will continue to pay over \$170 million in excessive rates due to the subsidies that APS continues to include in its E-32 rates.

1 **Q. Do you have any recommendations to more reasonably address this subsidy**
2 **problem in this case?**

3 A. Yes. I have two specific recommendations. First, I recommend that within the E-32
4 rate class, each of the three non-TOU E-32 rate classes (E-32 S, E-32 M and E-32 L)
5 receive an increase in a manner that uniformly, on a percentage basis, reduces the
6 current subsidies paid by each of these schedules.² These three rate classes comprise
7 over 96% of the total E-32 revenues. As can be seen in my Table 5, though each of
8 these three E-32 rate classes is paying substantial subsidies, the Company is only
9 proposing to reduce the subsidies paid by Rate E-32 S, while actually increasing the
10 subsidies paid by E-32 M and E-32 L. My recommendation is to reduce the subsidies
11 paid by these three main E-32 rate classes on a uniform percentage basis. The
12 Company's rate spread proposal does not reduce subsidies paid by these three E-32
13 rate class in a consistent manner.

14
15 **Q. Does your E-32 rate class proposal result in any shift in costs to other rate**
16 **schedules?**

17 A. No. This recommendation only impacts the three non-TOU E-32 rate schedules (E-
18 32 S, E-32 M and E-32 L). Effectively, it provides a uniform percentage adjustment
19 to the current subsidies paid by each the main E-32 Rate Schedules, but does not

² In the Company's class cost of service study, Rate E-30 XS is combined with Rate E-32 S into a single cost of service class.

1 change the Company's proposed rate spread to any other rate class or the subsidies
2 paid and received by any other rate class (for example, the Residential class).
3

4 **Q. What are the rate schedule increases that you are recommending, based on your**
5 **proposal to uniformly adjust the E-32 rate schedule subsidies at proposed rates?**

6 A. Table 6 presents these increases, together with the subsidies at present and proposed
7 rates and the percentage change in subsidies. I should note that these increase are
8 based on the Company's filed overall revenue increase and do not reflect adjustments
9 that will likely be made by the Commission.
10

11 As can be seen, for each of the E-32 rate schedules, the percentage change in
12 subsidies is now consistent among the three major E-32 rate schedules. For all other
13 rate classes, the increases reflect the APS proposed rate spread and revenue increases.

Table 6
Kroger Proposed Increases
(Assumes 100% of APS Requested Revenue Increase)

	Present <u>Revenues</u>	<u>Proposed Increase</u>		Proposed <u>Subsidy</u>	Present <u>Subsidy</u>	<u>% Changes</u>
		\$	%			
RESIDENTIAL	1,486,578,000	286,896,106	19.3%	172,736,795	184,881,978	-6.6%
GENERAL SERVICE	1,343,926,000	138,616,065	10.3%	(173,936,602)	(183,434,231)	-5.2%
E-221 (Water Pumping)	28,739,000	4,892,056	17.0%	962,577	1,814,859	-47.0%
STREET LIGHTING	21,082,000	2,129,751	10.1%	833,913	(1,628,596)	-151.2%
DUSK TO DAWN	8,578,000	866,592	10.1%	(564,357)	(1,634,010)	-65.5%
 TOTAL GENERAL SVC	 1,343,926,000	 138,616,065	 10.3%	 (173,936,602)	 (183,434,231)	 -5.2%
E-20 (Church Rate)	4,068,500	828,587	20.4%	2,434,299	2,104,056	15.7%
E-32 TOU (0-100 kW)	4,168,000	358,890	8.6%	(1,184,618)	(1,198,955)	-1.2%
E-32 TOU (101-400 kW)	6,774,000	791,383	11.7%	(1,394,966)	(1,273,755)	9.5%
E-32 TOU (401+ kW)	21,208,000	2,287,141	10.8%	(3,016,242)	(2,817,194)	7.1%
School TOU	11,345,000	1,745,095	15.4%	679,643	546,080	24.5%
E-30, E-32 (0-100 kW)	511,453,500	50,131,309	9.8%	(106,229,051)	(112,292,007)	-5.4%
E-32 (101-400 kW)	308,825,000	32,208,169	10.4%	(40,410,578)	(42,716,986)	-5.4%
E-32 (401+ kW)	272,178,000	28,247,962	10.4%	(25,598,534)	(27,059,554)	-5.4%
E-34	59,842,000	6,488,055	10.8%	168,521	(135,682)	-224.2%
E-35	144,064,000	15,529,473	10.8%	614,923	1,409,766	-56.4%
 TOTAL RETAIL	 2,888,903,000	 433,400,570	 15.0%			

Q. What is your second rate spread proposal?

A. As I discussed above, my recommended modification to the Company's proposed rate spread among just the three main E-32 rate schedules does not address the significant inter-class subsidies (i.e., the rate spread between the residential and general service classes) that will continue under the Company's proposal. While I believe that my proposed increases among the various E-32 rate schedules are more reasonable than the Company's proposal in this case, it does not address the more significant subsidy

1 problem that has persistently continued over many years. Specifically, the size of the
2 subsidies paid by all general service customers to other rate classes.

3
4 In the likely event that the Commission will ultimately approve an overall revenue
5 increase for APS that is less than it's requested \$433 million increase, any such
6 reductions should be applied to rate classes in a manner that is consistent with
7 reducing interclass subsidies. The subsidies paid and received by each rate class at
8 proposed rates shown in Table 6 provide a guide that can be used to systematically
9 apply any such Commission authorized reductions to the \$433 million revenue
10 increase to those rate classes that will continue to pay very large subsidies (for
11 example, each of the E-32 rate schedules).

12
13 First, the appropriate metric to use is the Company's proposed revenue increase,
14 excluding adjustor roll-in amounts. APS's requested net increase is \$166 million. A
15 reasonable approach would be to apply 50% of such reduction dollars (50% of the
16 difference between \$166 million and the assumed net revenue increase approved by
17 the Commission) to reduce the subsidies that would continue to be paid by rate
18 classes, following the increases shown in my Table 6. This Step 1 adjustment would
19 be a uniform percentage decrease in the Table 6 proposed revenue increases for those
20 rate classes that are expected to be above cost of service at the Company's proposed
21 rate levels. The remaining 50% could be applied in a "Step 2" adjustment to reduce
22 the proposed increases shown in Table 6 on a uniform percentage basis to all rate

1 classes (including those rate classes receiving an adjustment in Step 1). This type of
2 approach would provide a reduction to each rate class, relative to APS's proposals in
3 this case (including the residential class), but also mitigate the expected continuing
4 cost of service disparities.

5
6 For illustration purposes, assume that the Commission approved an overall revenue
7 increase, excluding the adjustor roll-in amount of \$86 million (\$80 million less than
8 the Company requested). I would recommend that \$40 million of the reduction be
9 applied on a uniform percentage basis to rate classes that will continue to pay
10 subsidies (see Table 6), with the remaining \$40 million be spread uniformly to reduce
11 the revenue increases proposed for all rate classes, including those rate classes
12 receiving a Step 1 adjustment.

13
14 **III. RATE E-32 L RATE DESIGN**

15
16 **Q. Have you reviewed APS' proposed Rate E-32 L rate design?**

17 **A.** Yes. Based on a comparison between the E-32 L unit energy cost and the Company's
18 proposed E-32 L energy charge, there is a substantial amount of excess cost being
19 recovered in the energy charge that should be shifted to the E-32 L demand charges.
20 This problem means that higher load factor E-32 L customers will be subsidizing
21 lower load factor E-32 L customers.

1 **Q. How did you determine that the proposed E-32 L energy charge is excessive?**

2 A. I developed a comparison of the proposed energy charge to the unit energy cost of
3 service that I presented in Table 2. This unit energy cost is based on my corrected
4 cost of service analysis that fixes the excess energy related expenses assigned to E-32
5 L (and other rates serving AG-1 customers). Kroger has consistently supported cost
6 of service based rates that recovers all demand related costs through a properly
7 designed demand charge.

8
9 **Q. How does APS' proposed E-32 L energy charge compare to the unit energy cost**
10 **per kWh?**

11 A. Table 7 below shows this comparison. After removing the base fuel cost from both
12 the unit cost rate per kWh and the proposed energy rate, the proposed non-fuel energy
13 rate is 40% to 70% higher than cost of service. This difference cannot be justified,
14 even considering the subsidy amount added to Rate E-32 L. Since the subsidy is
15 effectively an additional rate of return paid built into the rate, it is reasonably related
16 to rate base. The energy portion of E-32 L rate base is less than 10% of the overall
17 rate base assigned to this rate schedule. Thus, even the large dollar subsidy built-in to
18 the E-32 L rate cannot justify the excessive non-fuel energy charge proposed by APS.

Table 7 Proposed Rate E-32 L Excess Energy Charges				
	<u>Unit Cost Data</u>	<u>Base Fuel</u>	<u>Non-Fuel Unit Cost</u>	<u>Percent</u>
Energy Related Rev. Req.	126,184,746			
E-32 L kWh	3,287,320,000			
Unit Energy Cost	0.038385	0.02988	0.00850	
Proposed E-32 L Energy Rate				
Summer	0.061220	0.02988	0.03134	
Winter	0.042040	0.02988	0.01216	
Excess Non-Fuel Energy Charge			0.02283	
Summer			0.00365	
Winter				
Excess Non-Fuel Energy Charge - Percent				
Summer				72.9%
Winter				30.1%

As can be seen in Table 7, the non-fuel/purchased energy portion of the proposed E-32 L summer and winter energy charges are 73% and 30% above cost of service, respectively. There is no justification for such excess charges. The Company's rate design results in higher load factor E-32 L customers subsidizing lower load factor customers. There is no justification for this rate design. Rate E-32 L customers must have monthly demands in excess of 400 kW. The average E-32 L billing demand per customer is about 730 kW per month. Customers on E-32 L are not small customers that need subsidies from higher load factor E-32 L customers.

1 **Q. What is your recommendation on this E-32 L rate design issue?**

2 A. While I believe that the energy charges should be set at cost of service, at a minimum,
3 the amount of the excess non-fuel summer and winter energy charges (see Table 7)
4 proposed by APS should be reduced by 50% from the level proposed by the
5 Company. The revenue associated with this adjustment should be spread
6 proportionately to reduce each of the E-32 L demand charges.

7
8 **IV. PROPOSED AGGREGATION DISCOUNT**

9
10 **Q. Have you reviewed the Company's proposal to implement an aggregation**
11 **discount for E-32 L and E-32TOU L customers that have multiple sites taking**
12 **service under these rate schedules?**

13 A. Yes. APS witness Miessner describes the Company's proposal on page 53 of his
14 testimony. The proposal would provide a multi-site customer on these large
15 commercial rates a discount to the otherwise applicable unbundled generation charge
16 that would effectively price generation service at a rate similar to APS's extra-large
17 rates. The aggregation discount would apply to such customers if their aggregated
18 load is at least 5 mW. The discount is \$0.0024 per kWh.

19
20 **Q. Do you support the Company's proposal?**

21 A. Yes. The main argument in support of such a discount is that a multi-site customer on
22 Rate E-32 L or E-32TOU L that has at least 5 mW of load is really no different than a

1 5 mW customer on Rate E-34 or E-35, which require a minimum load of 3,000 kW to
2 qualify. From a generation standpoint, the cost to serve 5 mW of load (assuming a
3 similar load pattern) should be the same, whether it is behind a single meter at a single
4 site or whether it is at multiple sites – the load on APS system would be the same and
5 therefore the cost should be the same. The proposed aggregation discount is designed
6 to accomplish this result for generation costs.

7
8 **Q. Is there a cost of service rationale for the Company's proposed aggregation**
9 **discount?**

10 A. Yes. The concept for a multi-site aggregation of customer loads for purposes of
11 determining that customer's charges for generation fixed costs is based on the
12 diversity that the customer itself produces among its multiple facilities. For example,
13 if a customer, such as Kroger, has 20 locations on the APS system, all taking service
14 on the E-32 L rate, it is very unlikely that each of these 20 locations would achieve its
15 maximum demand at the same time, even within an on-peak hourly window. If the
16 average maximum demand of each facility (location) is 450 kW, the combined hourly
17 maximum demand is likely to be less than 9,000 kW (450 kW times 20). The concept
18 behind the aggregation discount is to recognize this diversity that is provided by this
19 customer and treat the customer as a single load for purposes of determining the
20 customer's billing demand for recovering fixed unbundled generation costs,
21 consistent with the Company's extra-large Rates. Since this discount only applies to

1 the generation charge, customers would continue to pay the full rate on distribution
2 and transmission demand, as measured separately at each location on the APS system.
3

4 **Q. Are you aware of any utilities that have a similar type of aggregation discount?**

5 A. Yes. Consumers Energy in Michigan has such a rate, called the Aggregate Peak
6 Demand Service Provision. This program is available to any customer with 7
7 accounts or more who desire to aggregate their On-Peak Billing Demands for
8 power supply billing purposes.
9

10 **V. EXPERIMENTAL RATE AG-1**
11

12 **Q. Have you reviewed the Company's proposal to terminate the AG-1 rate**
13 **program?**

14 A. Yes. APS witness Snook discusses this in his testimony and recommends that the
15 AG-1 program be terminated because the Company believes that it is not sustainable,
16 given the margin losses that have been calculated by APS.
17

18 **Q. Do you have any comments on the Company's AG-1 proposal?**

19 A. The Company's proposal to terminate Rate AG-1 should not be accepted. Rather, if
20 the Commission finds that the current provisions of Rate AG-1 are unreasonable, the
21 AG-1 rate should be modified to address the concerns. Customers such as Kroger
22 have developed a significant amount of experience participating in the market over

1 the past 5 year as a result of the rate and should be permitted to continue obtaining a
2 portion of their load under market based pricing. To the extent that modifications are
3 made to Rate AG-1 in response to the Company's concerns, these modifications
4 should be supported by cost analysis and not be an unreasonable hindrance to market
5 participation.

6
7 **Q. Does that complete your testimony?**

8 **A. Yes.**

AFFIDAVIT

STATE OF GEORGIA)

COUNTY OF FULTON)

STEPHEN J. BARON, being duly sworn, deposes and states: that the attached is his sworn testimony and that the statements contained are true and correct to the best of his knowledge, information and belief.

Stephen G. Baron
Stephen G. Baron

Sworn to and subscribed before me on this
26th day of January 2017.

Jessica K. Inman
Notary Public



**BEFORE THE
ARIZONA CORPORATION COMMISSION**

**IN THE MATTER OF THE APPLICATION OF)
ARIZONA PUBLIC SERVICE COMPANY FOR)
A HEARING TO DETERMINE THE FAIR VALUE)
OF THE UTILITY PROPERTY OF THE COMPANY) Docket No. E-01345A-16-0036
FOR RATEMAKING PURPOSES, TO FIX A JUST)
AND REASONABLE RATE OF RETURN)
THEREON, TO APPROVE RATE SCHEDULES)
DESIGNED TO DEVELOP SUCH RETURN)**

**EXHIBITS
OF
STEPHEN J. BARON
(COST OF SERVICE AND RATE DESIGN)**

**ON BEHALF OF THE
KROGER CO.**

**J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA**

**BEFORE THE
ARIZONA CORPORATION COMMISSION**

IN THE MATTER OF THE APPLICATION OF)	
ARIZONA PUBLIC SERVICE COMPANY FOR)	
A HEARING TO DETERMINE THE FAIR VALUE)	
OF THE UTILITY PROPERTY OF THE COMPANY)	Docket No. E-01345A-16-0036
FOR RATEMAKING PURPOSES, TO FIX A JUST)	
AND REASONABLE RATE OF RETURN)	
THEREON, TO APPROVE RATE SCHEDULES)	
DESIGNED TO DEVELOP SUCH RETURN)	

EXHIBIT__ (SJB-1)

OF

STEPHEN J. BARON

(COST OF SERVICE AND RATE DESIGN)

**ON BEHALF OF THE
KROGER CO.**

**Expert Testimony Appearances
of
Stephen J. Baron
As of January 2017**

Date	Case	Jurisdic.	Party	Utility	Subject
4/81	203(B)	KY	Louisville Gas & Electric Co.	Louisville Gas & Electric Co.	Cost-of-service.
4/81	ER-81-42	MO	Kansas City Power & Light Co.	Kansas City Power & Light Co.	Forecasting.
6/81	U-1933	AZ	Arizona Corporation Commission	Tucson Electric Co.	Forecasting planning.
2/84	8924	KY	Airco Carbide	Louisville Gas & Electric Co.	Revenue requirements, cost-of-service, forecasting, weather normalization.
3/84	84-038-U	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Excess capacity, cost-of- service, rate design.
5/84	830470-EI	FL	Florida Industrial Power Users' Group	Florida Power Corp.	Allocation of fixed costs, load and capacity balance, and reserve margin. Diversification of utility.
10/84	84-199-U	AR	Arkansas Electric Energy Consumers	Arkansas Power and Light Co.	Cost allocation and rate design.
11/84	R-842651	PA	Lehigh Valley Power Committee	Pennsylvania Power & Light Co.	Interruptible rates, excess capacity, and phase-in.
1/85	85-65	ME	Airco Industrial Gases	Central Maine Power Co.	Interruptible rate design.
2/85	I-840381	PA	Philadelphia Area Industrial Energy Users' Group	Philadelphia Electric Co.	Load and energy forecast.
3/85	9243	KY	Alcan Aluminum Corp., et al.	Louisville Gas & Electric Co.	Economics of completing fossil generating unit.
3/85	3498-U	GA	Attorney General	Georgia Power Co.	Load and energy forecasting, generation planning economics.
3/85	R-842632	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Generation planning economics, prudence of a pumped storage hydro unit.
5/85	84-249	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Cost-of-service, rate design return multipliers.
5/85		City of Santa Clara WV	Chamber of Commerce	Santa Clara Municipal	Cost-of-service, rate design.
6/85	84-768- E-42T		West Virginia Industrial Intervenors	Monongahela Power Co.	Generation planning economics, prudence of a pumped storage hydro unit.

**Expert Testimony Appearances
of
Stephen J. Baron
As of January 2017**

Date	Case	Jurisdct.	Party	Utility	Subject
6/85	E-7 Sub 391	NC	Carolina Industrials (CIGFUR III)	Duke Power Co.	Cost-of-service, rate design, interruptible rate design.
7/85	29046	NY	Industrial Energy Users Association	Orange and Rockland Utilities	Cost-of-service, rate design.
10/85	85-043-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Regulatory policy, gas cost-of- service, rate design.
10/85	85-63	ME	Airco Industrial Gases	Central Maine Power Co.	Feasibility of interruptible rates, avoided cost.
2/85	ER- 8507698	NJ	Air Products and Chemicals	Jersey Central Power & Light Co.	Rate design.
3/85	R-850220	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Optimal reserve, prudence, off-system sales guarantee plan.
2/86	R-850220	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Optimal reserve margins, prudence, off-system sales guarantee plan.
3/86	85-299U	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Cost-of-service, rate design, revenue distribution.
3/86	85-726- EL-AIR	OH	Industrial Electric Consumers Group	Ohio Power Co.	Cost-of-service, rate design, interruptible rates.
5/86	86-081- E-GI	WV	West Virginia Energy Users Group	Monongahela Power Co.	Generation planning economics, prudence of a pumped storage hydro unit.
8/86	E-7 Sub 408	NC	Carolina Industrial Energy Consumers	Duke Power Co.	Cost-of-service, rate design, interruptible rates.
10/86	U-17378	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Excess capacity, economic analysis of purchased power.
12/86	38063	IN	Industrial Energy Consumers	Indiana & Michigan Power Co.	Interruptible rates.
3/87	EL-86- 53-001 EL-86- 57-001	Federal Energy Regulatory Commission (FERC)	Louisiana Public Service Commission Staff	Gulf States Utilities, Southern Co.	Cost/benefit analysis of unit power sales contract.
4/87	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Load forecasting and imprudence damages, River Bend Nuclear unit.

**Expert Testimony Appearances
of
Stephen J. Baron
As of January 2017**

Date	Case	Jurisd.	Party	Utility	Subject
			Staff		
5/87	87-023-E-C	WV	Airco Industrial Gases	Monongahela Power Co.	Interruptible rates.
5/87	87-072-E-G1	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Analyze Mon Power's fuel filing and examine the reasonableness of MP's claims.
5/87	86-524-E-SC	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Economic dispatching of pumped storage hydro unit.
5/87	9781	KY	Kentucky Industrial Energy Consumers	Louisville Gas & Electric Co.	Analysis of impact of 1986 Tax Reform Act.
6/87	3673-U	GA	Georgia Public Service Commission	Georgia Power Co.	Economic prudence, evaluation of Vogtle nuclear unit - load forecasting, planning.
6/87	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Phase-in plan for River Bend Nuclear unit.
7/87	85-10-22	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power Co.	Methodology for refunding rate moderation fund.
8/87	3673-U	GA	Georgia Public Service Commission	Georgia Power Co.	Test year sales and revenue forecast.
9/87	R-850220	PA	West Penn Power Industrial Intervenor	West Penn Power Co.	Excess capacity, reliability of generating system.
10/87	R-870651	PA	Duquesne Industrial Intervenor	Duquesne Light Co.	Interruptible rate, cost-of-service, revenue allocation, rate design.
10/87	I-860025	PA	Pennsylvania Industrial Intervenor		Proposed rules for cogeneration, avoided cost, rate recovery.
10/87	E-015/GR-87-223	MN	Taconite Intervenor	Minnesota Power & Light Co.	Excess capacity, power and cost-of-service, rate design.
10/87	8702-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Revenue forecasting, weather normalization.
12/87	87-07-01	CT	Connecticut Industrial Energy Consumers	Connecticut Light Power Co.	Excess capacity, nuclear plant phase-in.
3/88	10064	KY	Kentucky Industrial Energy Consumers	Louisville Gas & Electric Co.	Revenue forecast, weather normalization rate treatment of cancelled plant.

**Expert Testimony Appearances
of
Stephen J. Baron
As of January 2017**

Date	Case	Jurisdct.	Party	Utility	Subject
3/88	87-183-TF	AR	Arkansas Electric Consumers	Arkansas Power & Light Co.	Standby/backup electric rates.
5/88	870171C001	PA	GPU Industrial Intervenor	Metropolitan Edison Co.	Cogeneration deferral mechanism, modification of energy cost recovery (ECR).
6/88	870172C005	PA	GPU Industrial Intervenor	Pennsylvania Electric Co.	Cogeneration deferral mechanism, modification of energy cost recovery (ECR).
7/88	88-171-EL-AIR 88-170-EL-AIR Interim Rate Case	OH	Industrial Energy Consumers	Cleveland Electric/ Toledo Edison	Financial analysis/need for interim rate relief.
7/88	Appeal of PSC	19th Judicial Docket U-17282	Louisiana Public Service Commission Circuit Court of Louisiana	Gulf States Utilities	Load forecasting, imprudence damages.
11/88	R-880989	PA	United States Steel	Carnegie Gas	Gas cost-of-service, rate design.
11/88	88-171-EL-AIR 88-170-EL-AIR	OH	Industrial Energy Consumers	Cleveland Electric/ Toledo Edison. General Rate Case.	Weather normalization of peak loads, excess capacity, regulatory policy.
3/89	870216/283 284/286	PA	Armco Advanced Materials Corp., Allegheny Ludlum Corp.	West Penn Power Co.	Calculated avoided capacity, recovery of capacity payments.
8/89	8555	TX	Occidental Chemical Corp.	Houston Lighting & Power Co.	Cost-of-service, rate design.
8/89	3840-U	GA	Georgia Public Service Commission	Georgia Power Co.	Revenue forecasting, weather normalization.
9/89	2087	NM	Attorney General of New Mexico	Public Service Co. of New Mexico	Prudence - Palo Verde Nuclear Units 1, 2 and 3, load forecasting.
10/89	2262	NM	New Mexico Industrial Energy Consumers	Public Service Co. of New Mexico	Fuel adjustment clause, off-system sales, cost-of-service, rate design, marginal cost.
11/89	38728	IN	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Excess capacity, capacity equalization, jurisdictional cost allocation, rate design, interruptible rates.

**Expert Testimony Appearances
of
Stephen J. Baron
As of January 2017**

Date	Case	Jurisdic.	Party	Utility	Subject
1/90	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Jurisdictional cost allocation, O&M expense analysis.
5/90	890366	PA	GPU Industrial Intervenors	Metropolitan Edison Co.	Non-utility generator cost recovery.
6/90	R-901609	PA	Armco Advanced Materials Corp., Allegheny Ludlum Corp.	West Penn Power Co.	Allocation of QF demand charges in the fuel cost, cost-of-service, rate design.
9/90	8278	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost-of-service, rate design, revenue allocation.
12/90	U-9346 Rebuttal	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Demand-side management, environmental externalities.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Revenue requirements, jurisdictional allocation.
12/90	90-205	ME	Airco Industrial Gases	Central Maine Power Co.	Investigation into interruptible service and rates.
1/91	90-12-03 Interim	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power Co.	Interim rate relief, financial analysis, class revenue allocation.
5/91	90-12-03 Phase II	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power Co.	Revenue requirements, cost-of-service, rate design, demand-side management.
8/91	E-7, SUB SUB 487	NC	North Carolina Industrial Energy Consumers	Duke Power Co.	Revenue requirements, cost allocation, rate design, demand-side management.
8/91	8341 Phase I	MD	Westvaco Corp.	Potomac Edison Co.	Cost allocation, rate design, 1990 Clean Air Act Amendments.
8/91	91-372 EL-UNC	OH	Armco Steel Co., L.P.	Cincinnati Gas & Electric Co.	Economic analysis of cogeneration, avoid cost rate.
9/91	P-910511 P-910512	PA	Allegheny Ludlum Corp., Armco Advanced Materials Co., The West Penn Power Industrial Users' Group	West Penn Power Co.	Economic analysis of proposed CWIP Rider for 1990 Clean Air Act Amendments expenditures.
9/91	91-231 -E-NC	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Economic analysis of proposed CWIP Rider for 1990 Clean Air

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Stephen J. Baron
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Date	Case	Jurisdic.	Party	Utility	Subject
					Act Amendments expenditures.
10/91	8341 - Phase II	MD	Westvaco Corp.	Potomac Edison Co.	Economic analysis of proposed CWIP Rider for 1990 Clean Air Act Amendments expenditures.
10/91	U-17282	LA	Louisiana Public Service Commission Staff	Gulf States Utilities	Results of comprehensive management audit.
Note: No testimony was prefiled on this.					
11/91	U-17949 Subdocket A	LA	Louisiana Public Service Commission Staff	South Central Bell Telephone Co. and proposed merger with Southern Bell Telephone Co.	Analysis of South Central Bell's restructuring and
12/91	91-410- EL-AIR	OH	Armco Steel Co., Air Products & Chemicals, Inc.	Cincinnati Gas & Electric Co.	Rate design, interruptible rates.
12/91	P-880286	PA	Armco Advanced Materials Corp., Allegheny Ludlum Corp.	West Penn Power Co.	Evaluation of appropriate avoided capacity costs - QF projects.
1/92	C-913424	PA	Duquesne Interruptible Complainants	Duquesne Light Co.	Industrial interruptible rate.
6/92	92-02-19	CT	Connecticut Industrial Energy Consumers	Yankee Gas Co.	Rate design.
8/92	2437	NM	New Mexico Industrial Intervenor	Public Service Co. of New Mexico	Cost-of-service.
8/92	R-00922314	PA	GPU Industrial Intervenor	Metropolitan Edison Co.	Cost-of-service, rate design, energy cost rate.
9/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost-of-service, rate design, energy cost rate, rate treatment.
10/92	M-00920312 C-007	PA	The GPU Industrial Intervenor	Pennsylvania Electric Co.	Cost-of-service, rate design, energy cost rate, rate treatment.
12/92	U-17949	LA	Louisiana Public Service Commission Staff	South Central Bell Co.	Management audit.
12/92	R-00922378	PA	Armco Advanced Materials Co. The WPP Industrial Intervenor	West Penn Power Co.	Cost-of-service, rate design, energy cost rate, SO ₂ allowance rate treatment.
1/93	8487	MD	The Maryland Industrial Group	Baltimore Gas & Electric Co.	Electric cost-of-service and rate design, gas rate design

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of
Stephen J. Baron
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Date	Case	Jurisdct.	Party	Utility	Subject
					(flexible rates).
2/93	E002/GR-92-1185	MN	North Star Steel Co. Praxair, Inc.	Northern States Power Co.	Interruptible rates.
4/93	EC92 21000 ER92-806-000 (Rebuttal)	Federal Energy Regulatory Commission	Louisiana Public Service Commission Staff	Gulf States Utilities/Entergy agreement.	Merger of GSU into Entergy System; impact on system
7/93	93-0114- E-C	WV	Airco Gases	Monongahela Power Co.	Interruptible rates.
8/93	930759-EG	FL	Florida Industrial Power Users' Group	Generic - Electric Utilities	Cost recovery and allocation of DSM costs.
9/93	M-009 30406	PA	Lehigh Valley Power Committee	Pennsylvania Power & Light Co.	Ratemaking treatment of off-system sales revenues.
11/93	346	KY	Kentucky Industrial Utility Customers	Generic - Gas Utilities	Allocation of gas pipeline transition costs - FERC Order 636.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Nuclear plant prudence, forecasting, excess capacity.
4/94	E-015/ GR-94-001	MN	Large Power Intervenor	Minnesota Power Co.	Cost allocation, rate design, rate phase-in plan.
5/94	U-20178	LA	Louisiana Public Service Commission	Louisiana Power & Light Co.	Analysis of least cost integrated resource plan and demand-side management program.
7/94	R-00942986	PA	Armco, Inc.; West Penn Power Industrial Intervenor	West Penn Power Co.	Cost-of-service, allocation of rate increase, rate design, emission allowance sales, and operations and maintenance expense.
7/94	94-0035- E-42T	WV	West Virginia Energy Users Group	Monongahela Power Co.	Cost-of-service, allocation of rate increase, and rate design.
8/94	EC94 13-000	Federal Energy Regulatory Commission	Louisiana Public Service Commission	Gulf States Utilities/Entergy	Analysis of extended reserve shutdown units and violation of system agreement by Entergy.
9/94	R-00943 081 R-00943 081C0001	PA	Lehigh Valley Power Committee	Pennsylvania Public Utility Commission	Analysis of interruptible rate terms and conditions, availability.
9/94	U-17735	LA	Louisiana Public	Cajun Electric	Evaluation of appropriate avoided

**Expert Testimony Appearances
of
Stephen J. Baron
As of January 2017**

Date	Case	Jurisdic.	Party	Utility	Subject
			Service Commission	Power Cooperative	cost rate.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Revenue requirements.
10/94	5258-U	GA	Georgia Public Service Commission	Southern Bell Telephone & Telegraph Co.	Proposals to address competition in telecommunication markets.
11/94	EC94-7-000 ER94-898-000	FERC	Louisiana Public Service Commission	El Paso Electric and Central and Southwest	Merger economics, transmission equalization hold harmless proposals.
2/95	941-430EG	CO	CF&I Steel, L.P.	Public Service Company of Colorado	Interruptible rates, cost-of-service.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Cost-of-service, allocation of rate increase, rate design, interruptible rates.
6/95	C-00913424 C-00946104	PA	Duquesne Interruptible Complainants	Duquesne Light Co.	Interruptible rates.
8/95	ER95-112 -000	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Open Access Transmission Tariffs - Wholesale.
10/95	U-21485	LA	Louisiana Public Service Commission	Gulf States Utilities Company	Nuclear decommissioning, revenue requirements, capital structure.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	System Energy Resources, Inc.	Nuclear decommissioning, revenue requirements.
10/95	U-21485	LA	Louisiana Public Service Commission	Gulf States Utilities Co.	Nuclear decommissioning and cost of debt capital, capital structure.
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Retail competition issues.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Revenue requirement analysis.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Elec. Co., Potomac Elec. Power Co., Constellation Energy Co.	Ratemaking issues associated with a Merger.
8/96	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Decommissioning, weather normalization, capital

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As of January 2017**

Date	Case	Jurisdic.	Party	Utility	Subject
					structure.
2/97	R-973877	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Competitive restructuring policy issues, stranded cost, transition charges.
6/97	Civil Action No. 94-11474	US Bankruptcy Court Middle District of Louisiana	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Confirmation of reorganization plan; analysis of rate paths produced by competing plans.
6/97	R-973953	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Retail competition issues, rate unbundling, stranded cost analysis.
6/97	8738	MD	Maryland Industrial Group	Generic	Retail competition issues
7/97	R-973954	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Retail competition issues, rate unbundling, stranded cost analysis.
10/97	97-204	KY	Alcan Aluminum Corp. Southwire Co.	Big River Electric Corp.	Analysis of cost of service issues - Big Rivers Restructuring Plan
10/97	R-974008	PA	Metropolitan Edison Industrial Users	Metropolitan Edison Co.	Retail competition issues, rate unbundling, stranded cost analysis.
10/97	R-974009	PA	Pennsylvania Electric Industrial Customer	Pennsylvania Electric Co.	Retail competition issues, rate unbundling, stranded cost analysis.
11/97	U-22491	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Decommissioning, weather normalization, capital structure.
11/97	P-971265	PA	Philadelphia Area Industrial Energy Users Group	Enron Energy Services Power, Inc./ PECO Energy	Analysis of Retail Restructuring Proposal.
12/97	R-973981	PA	West Penn Power Industrial Intervenor	West Penn Power Co.	Retail competition issues, rate unbundling, stranded cost analysis.
12/97	R-974104	PA	Duquesne Industrial Intervenor	Duquesne Light Co.	Retail competition issues, rate unbundling, stranded cost analysis.
3/98 (Allocated Stranded Cost Issues)	U-22092	LA	Louisiana Public Service Commission	Gulf States Utilities Co.	Retail competition, stranded cost quantification.
3/98	U-22092		Louisiana Public Service Commission	Gulf States Utilities, Inc.	Stranded cost quantification, restructuring issues.

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Stephen J. Baron
As of January 2017**

Date	Case	Jurisdic.	Party	Utility	Subject
9/98	U-17735		Louisiana Public Service Commission	Cajun Electric Power Cooperative, Inc.	Revenue requirements analysis, weather normalization.
12/98	8794	MD	Maryland Industrial Group and Millennium Inorganic Chemicals Inc.	Baltimore Gas and Electric Co.	Electric utility restructuring, stranded cost recovery, rate unbundling.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Nuclear decommissioning, weather normalization, Entergy System Agreement.
5/99	EC-98- (Cross- 40-000 Answering Testimony)	FERC	Louisiana Public Service Commission	American Electric Power Co. & Central South West Corp.	Merger issues related to market power mitigation proposals.
5/99	98-426 (Response Testimony)	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co.	Performance based regulation, settlement proposal issues, cross-subsidies between electric gas services.
6/99	98-0452	WV	West Virginia Energy Users Group	Appalachian Power, Monongahela Power, & Potomac Edison Companies	Electric utility restructuring, stranded cost recovery, rate unbundling.
7/99	99-03-35	CT	Connecticut Industrial Energy Consumers	United Illuminating Company	Electric utility restructuring, stranded cost recovery, rate unbundling.
7/99	Adversary Proceeding No. 98-1065	U.S. Bankruptcy Court	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Motion to dissolve preliminary injunction.
7/99	99-03-06	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power Co.	Electric utility restructuring, stranded cost recovery, rate unbundling.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Nuclear decommissioning, weather normalization, Entergy System Agreement.
12/99	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative, Inc.	Analysis of Proposed Contract Rates, Market Rates.
03/00	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative, Inc.	Evaluation of Cooperative Power Contract Elections
03/00	99-1658-EL-ETP	OH	AK Steel Corporation	Cincinnati Gas & Electric Co.	Electric utility restructuring, stranded cost recovery, rate Unbundling.

**Expert Testimony Appearances
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Stephen J. Baron
As of January 2017**

Date	Case	Jurisdic.	Party	Utility	Subject
08/00	98-0452 E-GI	WVA	West Virginia Energy Users Group	Appalachian Power Co. American Electric Co.	Electric utility restructuring rate unbundling.
08/00	00-1050 E-T 00-1051-E-T	WVA	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Electric utility restructuring rate unbundling.
10/00	SOAH 473- 00-1020 PUC 2234	TX	The Dallas-Fort Worth Hospital Council and The Coalition of Independent Colleges And Universities	TXU, Inc.	Electric utility restructuring rate unbundling.
12/00	U-24993	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Nuclear decommissioning, revenue requirements.
12/00	EL00-66- 000 & ER00-2854 EL95-33-002	LA	Louisiana Public Service Commission	Entergy Services Inc.	Inter-Company System Agreement: Modifications for retail competition, interruptible load.
04/01	U-21453, U-20925, U-22092 (Subdocket B) Addressing Contested Issues	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Jurisdictional Business Separation - Texas Restructuring Plan
10/01	14000-U	GA	Georgia Public Service Commission Adversary Staff	Georgia Power Co.	Test year revenue forecast.
11/01	U-25687	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Nuclear decommissioning requirements transmission revenues.
11/01	U-25965	LA	Louisiana Public Service Commission	Generic	Independent Transmission Company ("Transco"). RTO rate design.
03/02	001148-EI	FL	South Florida Hospital and Healthcare Assoc.	Florida Power & Light Company	Retail cost of service, rate design, resource planning and demand side management.
06/02	U-25965	LA	Louisiana Public Service Commission	Entergy Gulf States Entergy Louisiana	RTO Issues
07/02	U-21453	LA	Louisiana Public Service Commission	SWEPCO, AEP	Jurisdictional Business Sep. - Texas Restructuring Plan.

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Date	Case	Jurisdic.	Party	Utility	Subject
08/02	U-25888	LA	Louisiana Public Service Commission	Entergy Louisiana, Inc. Entergy Gulf States, Inc.	Modifications to the Inter-Company System Agreement, Production Cost Equalization.
08/02	EL01-88-000	FERC	Louisiana Public Service Commission	Entergy Services Inc. and the Entergy Operating Companies	Modifications to the Inter-Company System Agreement, Production Cost Equalization.
11/02	02S-315EG	CO	CF&I Steel & Climax Molybdenum Co.	Public Service Co. of Colorado	Fuel Adjustment Clause
01/03	U-17735	LA	Louisiana Public Service Commission	Louisiana Coops	Contract Issues
02/03	02S-594E	CO	Cripple Creek and Victor Gold Mining Co.	Aquila, Inc.	Revenue requirements, purchased power.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Weather normalization, power purchase expenses, System Agreement expenses.
11/03	ER03-753-000	FERC	Louisiana Public Service Commission Staff	Entergy Services, Inc. and the Entergy Operating Companies	Proposed modifications to System Agreement Tariff MSS-4.
11/03	ER03-583-000 ER03-583-001 ER03-583-002 ER03-681-000, ER03-681-001 ER03-682-000, ER03-682-001 ER03-682-002	FERC	Louisiana Public Service Commission	Entergy Services, Inc., the Entergy Operating Companies, EWO Marketing, L.P. and Entergy Power, Inc.	Evaluation of Wholesale Purchased Power Contracts.
12/03	U-27136	LA	Louisiana Public Service Commission	Entergy Louisiana, Inc.	Evaluation of Wholesale Purchased Power Contracts.
01/04	E-01345-03-0437	AZ	Kroger Company	Arizona Public Service Co.	Revenue allocation rate design.
02/04	00032071	PA	Duquesne Industrial Intervenor	Duquesne Light Company	Provider of last resort issues.
03/04	03A-436E	CO	CF&I Steel, LP and Climax Molybdenum	Public Service Company of Colorado	Purchased Power Adjustment Clause.

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Date	Case	Jurisd.	Party	Utility	Subject
04/04	2003-00433 2003-00434	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co. Kentucky Utilities Co.	Cost of Service Rate Design
0-6/04	03S-539E	CO	Cripple Creek, Victor Gold Mining Co., Goodrich Corp., Holcim (U.S.), Inc., and The Trane Co.	Aquila, Inc.	Cost of Service, Rate Design Interruptible Rates
06/04	R-00049255	PA	PP&L Industrial Customer Alliance PPLICA	PPL Electric Utilities Corp.	Cost of service, rate design, tariff issues and transmission service charge.
10/04	04S-164E	CO	CF&I Steel Company, Climax Mines	Public Service Company of Colorado	Cost of service, rate design, Interruptible Rates.
03/05	Case No. KY 2004-00426 Case No. 2004-00421		Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Louisville Gas & Electric Co.	Environmental cost recovery.
06/05	050045-EI	FL	South Florida Hospital and Healthcare Assoc.	Florida Power & Light Company	Retail cost of service, rate design
07/05	U-28155	LA	Louisiana Public Service Commission Staff	Entergy Louisiana, Inc. Entergy Gulf States, Inc.	Independent Coordinator of Transmission – Cost/Benefit
09/05	Case Nos. WVA 05-0402-E-CN 05-0750-E-PC		West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Environmental cost recovery, Securitization, Financing Order
01/06	2005-00341	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Company	Cost of service, rate design, transmission expenses. Congestion Cost Recovery Mechanism
03/06	U-22092	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc.	Separation of EGSI into Texas and Louisiana Companies.
04/06	U-25116	LA	Louisiana Public Service Commission Staff	Entergy Louisiana, Inc.	Transmission Prudence Investigation
06/06	R-00061346 C0001-0005	PA	Duquesne Industrial Intervenors & IECPA	Duquesne Light Co.	Cost of Service, Rate Design, Transmission Service Charge, Tariff Issues
06/06	R-00061366 R-00061367 P-00062213 P-00062214		Met-Ed Industrial Energy Users Group and Penelec Industrial Customer Alliance	Metropolitan Edison Co. Pennsylvania Electric Co.	Generation Rate Cap, Transmission Service Charge, Cost of Service, Rate Design, Tariff Issues
07/06	U-22092 Sub-J	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc.	Separation of EGSI into Texas and Louisiana Companies.

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Date	Case	Jurisd.	Party	Utility	Subject
07/06	Case No. 2006-00130 Case No. 2006-00129	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Louisville Gas & Electric Co.	Environmental cost recovery.
08/06	Case No. PUE-2006-00065	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Co.	Cost Allocation, Allocation of Rev Incr, Off-System Sales margin rate treatment
09/06	E-01345A-05-0816	AZ	Kroger Company	Arizona Public Service Co.	Revenue allocation, cost of service, rate design.
11/06	Doc. No. 97-01-15RE02	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power United Illuminating	Rate unbundling issues.
01/07	Case No. 06-0960-E-42T	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Retail Cost of Service Revenue apportionment
03/07	U-29764	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc. Entergy Louisiana, LLC	Implementation of FERC Decision Jurisdictional & Rate Class Allocation
05/07	Case No. 07-63-EL-UNC	OH	Ohio Energy Group	Ohio Power, Columbus Southern Power	Environmental Surcharge Rate Design
05/07	R-00049255 Remand	PA	PP&L Industrial Customer Alliance PPLICA	PPL Electric Utilities Corp.	Cost of service, rate design, tariff issues and transmission service charge.
06/07	R-00072155	PA	PP&L Industrial Customer Alliance PPLICA	PPL Electric Utilities Corp.	Cost of service, rate design, tariff issues.
07/07	Doc. No. 07F-037E	CO	Gateway Canyons LLC	Grand Valley Power Coop.	Distribution Line Cost Allocation
09/07	Doc. No. 05-UR-103	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
11/07	ER07-682-000	FERC	Louisiana Public Service Commission Staff	Entergy Services, Inc. and the Entergy Operating Companies	Proposed modifications to System Agreement Schedule MSS-3. Cost functionalization issues.
1/08	Doc. No. 20000-277-ER-07	WY	Cimarex Energy Company	Rocky Mountain Power (PacifiCorp)	Vintage Pricing, Marginal Cost Pricing Projected Test Year
1/08	Case No. 07-551	OH	Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Class Cost of Service, Rate Restructuring, Apportionment of Revenue Increase to Rate Schedules
2/08	ER07-956	FERC	Louisiana Public Service Commission Staff	Entergy Services, Inc. and the Entergy Operating Companies	Entergy's Compliance Filing System Agreement Bandwidth Calculations.
2/08	Doc No. P-00072342	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Default Service Plan issues.
3/08	Doc No.	AZ	Kroger Company	Tucson Electric Power Co.	Cost of Service, Rate Design

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Date	Case	Jurisdct.	Party	Utility	Subject
	E-01933A-05-0650				
05/08	08-0278 E-GI	WV	West Virginia Energy Users Group	Appalachian Power Co. American Electric Power Co.	Expanded Net Energy Cost "ENEC" Analysis.
6/08	Case No. OH 08-124-EL-ATA		Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Recovery of Deferred Fuel Cost
7/08	Docket No. UT 07-035-93		Kroger Company	Rocky Mountain Power Co.	Cost of Service, Rate Design
08/08	Doc. No. WI 6680-UR-116		Wisconsin Industrial Energy Group, Inc.	Wisconsin Power and Light Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
09/08	Doc. No. WI 6690-UR-119		Wisconsin Industrial Energy Group, Inc.	Wisconsin Public Service Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
09/08	Case No. OH 08-936-EL-SSO		Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Provider of Last Resort Competitive Solicitation
09/08	Case No. OH 08-935-EL-SSO		Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Provider of Last Resort Rate Plan
09/08	Case No. OH 08-917-EL-SSO 08-918-EL-SSO		Ohio Energy Group	Ohio Power Company Columbus Southern Power Co.	Provider of Last Resort Rate Plan
10/08	2008-00251 2008-00252	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co. Kentucky Utilities Co.	Cost of Service, Rate Design
11/08	08-1511 E-GI	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost "ENEC" Analysis.
11/08	M-2008- 2036188, M- 2008-2036197	PA	Met-Ed Industrial Energy Users Group and Penelec Industrial Customer Alliance	Metropolitan Edison Co. Pennsylvania Electric Co.	Transmission Service Charge
01/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	Entergy's Compliance Filing System Agreement Bandwidth Calculations.
01/09	E-01345A- 08-0172	AZ	Kroger Company	Arizona Public Service Co.	Cost of Service, Rate Design
02/09	2008-00409	KY	Kentucky Industrial Utility Customers, Inc.	East Kentucky Power Cooperative, Inc.	Cost of Service, Rate Design
5/09	PUE-2009 -00018	VA	VA Committee For Fair Utility Rates	Dominion Virginia Power Company	Transmission Cost Recovery Rider
5/09	09-0177- E-GI	WV	West Virginia Energy Users Group	Appalachian Power Company	Expanded Net Energy Cost "ENEC" Analysis
6/09	PUE-2009	VA	VA Committee For	Dominion Virginia	Fuel Cost Recovery

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Date	Case	Jurisd.	Party	Utility	Subject
	-00016		Fair Utility Rates	Power Company	Rider
6/09	PUE-2009 -00038	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Company	Fuel Cost Recovery Rider
7/09	080677-EI	FL	South Florida Hospital and Healthcare Assoc.	Florida Power & Light Company	Retail cost of service, rate design
8/09	U-20925 (RRF 2004)	LA	Louisiana Public Service Commission Staff	Entergy Louisiana LLC	Interruptible Rate Refund Settlement
9/09	09AL-299E	CO	CF&I Steel Company Climax Molybdenum	Public Service Company of Colorado	Energy Cost Rate issues
9/09	Doc. No. 05-UR-104	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
9/09	Doc. No. 6680-UR-117	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Power and Light Co.	Cost of Service, rate design, tariff Issues, Interruptible rates.
10/09	Docket No. 09-035-23	UT	Kroger Company	Rocky Mountain Power Co.	Cost of Service, Allocation of Rev Increase
10/09	09AL-299E	CO	CF&I Steel Company Climax Molybdenum	Public Service Company of Colorado	Cost of Service, Rate Design
11/09	PUE-2009 -00019	VA	VA Committee For Fair Utility Rates	Dominion Virginia Power Company	Cost of Service, Rate Design
11/09	09-1485 E-P	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost "ENEC" Analysis.
12/09	Case No. 09-906-EL-SSO	OH	Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Provider of Last Resort Rate Plan
12/09	ER09-1224	FERC	Louisiana Public Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	Entergy's Compliance Filing System Agreement Bandwidth Calculations.
12/09	Case No. PUE-2009-00030	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Co.	Cost Allocation, Allocation of Rev Increase, Rate Design
2/10	Docket No. 09-035-23	UT	Kroger Company	Rocky Mountain Power Co.	Rate Design
3/10	Case No. 09-1352-E-42T	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Retail Cost of Service Revenue apportionment
3/10	E015/ GR-09-1151	MN	Large Power Intervenor	Minnesota Power Co.	Cost of Service, rate design
4/10	EL09-61	FERC	Louisiana Public Service Commission	Entergy Services, Inc. and the Entergy Operating	System Agreement Issues Related to off-system sales

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Date	Case	Jurisdct.	Party	Utility	Subject
				Companies	
4/10	2009-00459	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Company	Cost of service, rate design, transmission expenses.
4/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co. Kentucky Utilities Co.	Cost of Service, Rate Design
7/10	R-2010-2161575	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Cost of Service, Rate Design
09/10	2010-00167	KY	Kentucky Industrial Utility Customers, Inc.	East Kentucky Power Cooperative, Inc.	Cost of Service, Rate Design
09/10	10M-245E	CO	CF&I Steel Company Climax Molybdenum	Public Service Company of Colorado	Economic Impact of Clean Air Act
11/10	10-0699-E-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Cost of Service, Rate Design, Transmission Rider
11/10	Doc. No. 4220-UR-116	WI	Wisconsin Industrial Energy Group, Inc.	Northern States Power Co. Wisconsin	Cost of Service, rate design
12/10	10A-554EG	CO	CF&I Steel Company Climax Molybdenum	Public Service Company	Demand Side Management Issues
12/10	10-2586-EL-SSO	OH	Ohio Energy Group	Duke Energy Ohio	Provider of Last Resort Rate Plan Electric Security Plan
3/11	20000-384-ER-10	WY	Wyoming Industrial Energy Consumers	Rocky Mountain Power Wyoming	Electric Cost of Service, Revenue Apportionment, Rate Design
5/11	2011-00036	KY	Kentucky Industrial Utility Customers, Inc.	Big Rivers Electric Corporation	Cost of Service, Rate Design
6/11	Docket No. 10-035-124	UT	Kroger Company	Rocky Mountain Power Co.	Class Cost of Service
6/11	PUE-2011-00045	VA	VA Committee For Fair Utility Rates	Dominion Virginia Power Company	Fuel Cost Recovery Rider
07/11	U-29764	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc. Entergy Louisiana, LLC	Entergy System Agreement - Successor Agreement, Revisions, RTO Day 2 Market Issues
07/11	Case Nos. 11-346-EL-SSO 11-348-EL-SSO	OH	Ohio Energy Group	Ohio Power Company Columbus Southern Power Co.	Electric Security Rate Plan, Provider of Last Resort Issues
08/11	PUE-2011-00034	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Co.	Cost Allocation, Rate Recovery of RPS Costs
09/11	2011-00161 2011-00162	KY	Kentucky Industrial Utility	Louisville Gas & Electric Co. Kentucky Utilities Company	Environmental Cost Recovery
09/11	Case Nos.	OH	Ohio Energy Group	Ohio Power Company	Electric Security Rate Plan,

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Date	Case	Jurisd.	Party	Utility	Subject
	11-346-EL-SSO 11-348-EL-SSO			Columbus Southern Power Co.	Stipulation Support Testimony
10/11	11-0452 E-P-T	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Energy Efficiency/Demand Reduction Cost Recovery
11/11	11-1272 E-P	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost "ENEC" Analysis
11/11	E-01345A- 11-0224	AZ	Kroger Company	Arizona Public Service Co.	Decoupling
12/11	E-01345A- 11-0224	AZ	Kroger Company	Arizona Public Service Co.	Cost of Service, Rate Design
3/12	Case No. 2011-00401	KY	Kentucky Industrial Utility Consumers	Kentucky Power Company	Environmental Cost Recovery
4/12	2011-00036 Rehearing Case	KY	Kentucky Industrial Utility Customers, Inc.	Big Rivers Electric Corporation	Cost of Service, Rate Design
5/12	2011-346 2011-348	OH	Ohio Energy Group	Ohio Power Company	Electric Security Rate Plan Interruptible Rate Issues
6/12	PUE-2012 -00051	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Company	Fuel Cost Recovery Rider
6/12	12-00012 12-00026	TN	Eastman Chemical Co. Air Products and Chemicals, Inc.	Kingsport Power Company	Demand Response Programs
6/12	Docket No. 11-035-200	UT	Kroger Company	Rocky Mountain Power Co.	Class Cost of Service
6/12	12-0275- E-GI-EE	WV	West Virginia Energy Users Group	Appalachian Power Company	Energy Efficiency Rider
6/12	12-0399- E-P	WV	West Virginia Energy Users Group	Appalachian Power Company	Expanded Net Energy Cost ("ENEC")
7/12	120015-EI	FL	South Florida Hospital and Healthcare Assoc.	Florida Power & Light Company	Retail cost of service, rate design
7/12	2011-00063	KY	Kentucky Industrial Utility Customers, Inc.	Big Rivers Electric Corporation	Environmental Cost Recovery
8/12	Case No. 2012-00226	KY	Kentucky Industrial Utility Consumers	Kentucky Power Company	Real Time Pricing Tariff
9/12	ER12-1384	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Entergy System Agreement, Cancelled Plant Cost Treatment
9/12	2012-00221 2012-00222	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co. Kentucky Utilities Co.	Cost of Service, Rate Design
11/12	12-1238 E-GI	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost Recovery Issues

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Date	Case	Jurisdct.	Party	Utility	Subject
12/12	U-29764	LA	Louisiana Public Service Commission Staff	Entergy Gulf States Louisiana	Purchased Power Contracts
12/12	EL09-61	FERC	Louisiana Public Service Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	System Agreement Issues Related to off-system sales Damages Phase
12/12	E-01933A-12-0291	AZ	Kroger Company	Tucson Electric Power Co.	Decoupling
1/13	12-1188 E-PC	WV	West Virginia Energy Users Group	Appalachian Power Company	Securitization of ENEC Costs
1/13	E-01933A-12-0291	AZ	Kroger Company	Tucson Electric Power Co.	Cost of Service, Rate Design
4/13	12-1571 E-PC	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Generation Resource Transition Plan Issues
4/13	PUE-2012-00141	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Company	Generation Asset Transfer Issues
6/13	12-1655 E-PC	WV	West Virginia Energy Users Group	Appalachian Power Company	Generation Asset Transfer Issues
06/13	U-32675	LA	Louisiana Public Service Commission Staff	Entergy Gulf States, Inc. Entergy Louisiana, LLC	MISO Joint Implementation Plan Issues
7/13	130040-EI	FL	WCF Health Utility Alliance	Tampa Electric Company	Cost of Service, Rate Design
7/13	13-0467-E-P	WV	West Virginia Energy Users Group	Appalachian Power Company	Expanded Net Energy Cost ("ENEC")
7/13	13-0462-E-P	WV	West Virginia Energy Users Group	Appalachian Power Company	Energy Efficiency Issues
8/13	13-0557-E-P	WV	West Virginia Energy Users Group	Appalachian Power Company	Right-of-Way, Vegetation Control Cost Recovery Surcharge Issues
10/13	2013-00199	KY	Kentucky Industrial Utility Customers, Inc.	Big Rivers Electric Corporation	Ratemaking Policy Associated with Rural Economic Reserve Funds
10/13	13-0764-E-CN	WV	West Virginia Energy Users Group	Appalachian Power Company	Rate Recovery Issues – Clinch River Gas Conversion Project
11/13	R-2013-2372129	PA	United States Steel Corporation	Duquesne Light Company	Cost of Service, Rate Design
11/13	13A-0686EG	CO	CF&I Steel Company Climax Molybdenum	Public Service Company of Colorado	Demand Side Management Issues
11/13	13-1064-	WV	West Virginia Energy	Mon Power Co.	Right-of-Way, Vegetation Control Cost

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Date	Case	Jurisdic.	Party	Utility	Subject
	E-P		Users Group	Potomac Edison Co.	Recovery Surcharge Issues
4/14	ER-432-002	FERC	Louisiana Public Service Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	System Agreement Issues Related to Union Pacific Railroad Litigation Settlement
5/14	2013-2385 2013-2386	OH	Ohio Energy Group	Ohio Power Company	Electric Security Rate Plan Interruptible Rate Issues
5/14	14-0344- E-P	WV	West Virginia Energy Users Group	Appalachian Power Company	Expanded Net Energy Cost ("ENEC")
5/14	14-0345- E-PC	WV	West Virginia Energy Users Group	Appalachian Power Company	Energy Efficiency Issues
5/14	Docket No. 13-035-184	UT	Kroger Company	Rocky Mountain Power Co.	Class Cost of Service
7/14	PUE-2014 -00007	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Company	Renewable Portfolio Standard Rider Issues
7/14	ER13-2483	FERC	Bear Island Paper WB LLC	Old Dominion Electric Cooperative	Cost of Service, Rate Design Issues
8/14	14-0546- E-PC	WV	West Virginia Energy Users Group	Appalachian Power Company	Rate Recovery Issues – Mitchell Asset Transfer
8/14	PUE-2014 -00026	VA	Old Dominion Committee	Appalachian Power Company	Biennial Review Case - Cost of Service Issues
9/14	14-841-EL- SSO	OH	Ohio Energy Group	Duke Energy Ohio	Electric Security Rate Plan Standard Service Offer
10/14	14-0702- E-42T	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Cost of Service, Rate Design
11/14	14-1550- E-P	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost ("ENEC")
12/14	EL14-026	SD	Black Hills Power Industrial Intervenors	Black Hills Power, Inc.	Cost of Service Issues
12/14	14-1152- E-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Cost of Service, Rate Design transmission, lost revenues
2/15	14-1297 EI-SS0	OH	Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Electric Security Rate Plan Standard Service Offer
3/15	2014-00396	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Company	Cost of service, rate design, transmission expenses.
3/15	2014-00371 2014-00372	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas & Electric Co. Kentucky Utilities Co.	Cost of Service, Rate Design
5/15	EL10-65	FERC	Louisiana Public Service Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	System Agreement Issues Related to Interruptible load

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Date	Case	Jurisdct.	Party	Utility	Subject
5/15	15-0301-E-P	WV	West Virginia Energy Users Group	Appalachian Power Company	Expanded Net Energy Cost ("ENEC")
6/15	14-1580-EL-RDR	OH	Ohio Energy Group	Duke Energy Ohio	Energy Efficiency Rider Issues
7/15	EL10-65	FERC	Louisiana Public Service Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	System Agreement Issues Related to Off-System Sales and Bandwidth Tariff
8/15	PUE-2015-00034	VA	Old Dominion Committee For Fair Utility Rates	Appalachian Power Company	Renewable Portfolio Standard Rider Issues
8/15	87-0669-E-P	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Cost of Service, Rate Design
11/15	D2015-6.51	MT	Montana Large Customer Group	Montana Dakota Utilities Co.	Class Cost of Service, Rate Design
11/15	15-1351-E-P	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost ("ENEC")
3/16	EL01-88 Remand	FERC	Louisiana Public Service Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	System Agreement Issues Related to Bandwidth Tariff
5/16	16-0239-E-ENEC	WV	West Virginia Energy Users Group	Appalachian Power Company	Expanded Net Energy Cost ("ENEC")
6/16	E-01933A-15-0322	AZ	Kroger Company	Tucson Electric Power Co.	Cost of Service, Rate Design
6/16	16-00001	TN	East Tennessee Energy Consumers	Kingsport Power Co.	Cost of Service, Rate Design
6/16	14-1297 EI-SS0-Rehearing	OH	Ohio Energy Group	Ohio Edison, Toledo Edison Cleveland Electric Illuminating	Electric Security Rate Plan Standard Service Offer
7/16	160021-EI	FL	South Florida Hospital and Healthcare Assoc.	Florida Power & Light Company	Retail cost of service, rate design
7/16	16AL-0048E	CO	CF&I.Steel LP Climax Molybdenum	Public Service Company of Colorado	Cost of Service, Rate Design
7/16	16-0403-E-P	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Energy Efficiency/Demand Response
10/16	16-1121-E-ENEC	WV	West Virginia Energy Users Group	Mon Power Co. Potomac Edison Co.	Expanded Net Energy Cost ("ENEC")
11/16	16-0395-EL-SSO	OH	Ohio Energy Group	Dayton Power & Light	Electric Security Rate Plan

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Date	Case	Jurisdicth.	Party	Utility	Subject
11/16	EL09-61-004 FERC Remand		Louisiana Public Service Service Commission	Entergy Services, Inc. and the Entergy Operating Companies	System Agreement Issues Related to off-system sales Damages Phase
12/16	1139	D.C.	Healthcare Council of the National Capital Area	Potomac Electric Power Co.	Cost of Service, Rate Design

**BEFORE THE
ARIZONA CORPORATION COMMISSION**

IN THE MATTER OF THE APPLICATION OF)	
ARIZONA PUBLIC SERVICE COMPANY FOR)	
A HEARING TO DETERMINE THE FAIR VALUE)	
OF THE UTILITY PROPERTY OF THE COMPANY)	Docket No. E-01345A-16-0036
FOR RATEMAKING PURPOSES, TO FIX A JUST)	
AND REASONABLE RATE OF RETURN)	
THEREON, TO APPROVE RATE SCHEDULES)	
DESIGNED TO DEVELOP SUCH RETURN)	

EXHIBIT__ (SJB-2)

OF

STEPHEN J. BARON

(COST OF SERVICE AND RATE DESIGN)

**ON BEHALF OF THE
KROGER CO.**



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

	Demand Related	Energy Related	Customer Related	Total D/E/C
TOTAL RETAIL				
Rate Base				
1) Rate Base (excluding Cust. Advances & Deposits)	5,938,729,417	335,160,726	536,319,186	6,810,209,329
2) Customer Accounts	-	-	97,288,961	97,288,961
3) Cust. Service & Info and Sales Expense	-	-	31,177,571	31,177,571
4) Customer Deposits	(62,574,640)	(3,796,705)	(6,250,344)	(72,621,690)
5) Customer Advances	(82,234,542)	-	(12,668,700)	(94,903,242)
6) Total Rate Base	5,793,920,235	331,364,021	645,866,873	6,771,150,929
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%	8.13%
8) Return on Rate Base (Line 7 * Line 6)	471,045,715	26,939,895	52,508,961	550,494,571
Computation of Income Taxes				
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%	2.27%
10) Tax Rate	38.10%	38.10%	38.10%	38.10%
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/(1-Line 10)	208,978,721	11,951,844	23,295,521	244,226,085
Expenses				
12) Expenses	1,277,773,351	1,188,086,769	64,973,788	2,530,833,907
13) Customer Accounts	-	-	83,122,460	83,122,460
14) Cust. Service & Info and Sales Expense	-	-	23,033,321	23,033,321
15) Total Expenses	1,277,773,351	1,188,086,769	171,129,569	2,636,989,688
Revenue Requirement				
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	1,957,797,786	1,226,978,508	246,934,050	3,431,710,344
17) Less: Adjusted Surcharge & Other Revenues	(23,313,574)	(137,802,895)	2,567,370	(158,549,099)
18) Production Related Income Tax Adjustment	-	-	-	-
19) Out of Period Income Tax Adjustment	(2,309,842)	(146,886)	(232,908)	(2,689,636)
21) REVENUE REQUIREMENT @ 8.13%	1,932,174,370	1,089,028,726	249,268,513	3,270,471,609
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	44,360,734	2,525,212	4,979,682	51,865,628
23) TOTAL REVENUE REQUIREMENT	1,976,535,104	1,091,553,938	254,248,195	3,322,337,237



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

RESIDENTIAL					Total D/E/C	
Rate Base						
1) Rate Base (excluding Cust. Advances & Deposits)						
2) Customer Accounts	3,735,332,634	158,127,951	369,930,591		4,263,391,175	
3) Cust. Service & Info and Sales Expense	-	-	85,993,834		85,993,834	
4) Customer Deposits	(32,956,129)	(1,399,453)	27,557,894		27,557,894	
5) Customer Advances	(42,586,642)	-	(4,222,535)		(38,578,117)	
6) Total Rate Base	3,659,789,863	156,728,498	471,996,178		4,288,514,539	
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%		8.13%	
8) Return on Rate Base (Line 7 * Line 6)	297,540,916	12,742,027	38,373,289		348,656,232	
Computation of Income Taxes						
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%		2.27%	
10) Tax Rate	38.10%	38.10%	38.10%		38.10%	
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/(1-Line 10)	132,003,578	5,652,981	17,024,252		154,680,811	
Expenses						
12) Expenses						
13) Customer Accounts	783,584,834	555,778,810	39,105,764		1,378,469,408	
14) Cust. Service & Info and Sales Expense	-	-	73,472,046		73,472,046	
15) Total Expenses	783,584,834	555,778,810	131,382,985		1,470,746,629	
Revenue Requirement						
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	1,213,129,328	574,173,818	186,780,526		1,974,083,672	
17) Less: Adjusted Surcharge & Other Revenues	(14,826,282)	(67,235,053)	1,992,498		(80,068,837)	
19) Production Related Income Tax Adjustment	-	-	-		-	
20) Out of Period Income Tax Adjustment	(767,411)	(33,654)	(90,931)		(892,006)	
21) REVENUE REQUIREMENT @ 8.13%	1,197,535,636	506,905,100	188,682,093		1,893,122,829	
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	28,233,388	1,209,046	3,642,517		33,084,951	
23) TOTAL REVENUE REQUIREMENT	1,225,769,024	508,114,146	192,324,610		1,926,207,779	



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

	Demand Related	Energy Related	Customer Related	Total D/E/C
GENERAL SERVICE				
Rate Base				
1) Rate Base (excluding Cust. Advances & Deposits)	2,113,129,384	171,119,044	97,072,364	2,381,320,791
2) Customer Accounts	-	-	10,414,644	10,414,644
3) Cust. Service & Info and Sales Expense	-	-	3,337,514	3,337,514
4) Customer Deposits	(28,754,086)	(2,340,072)	(1,522,167)	(32,616,324)
5) Customer Advances	(39,465,083)	-	(5,299,906)	(44,764,989)
6) Total Rate Base	2,044,910,215	168,778,972	104,002,449	2,317,691,636
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%	8.13%
8) Return on Rate Base (Line 7 * Line 6)	166,251,200	13,721,730	8,455,399	188,428,330
Computation of Income Taxes				
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%	2.27%
10) Tax Rate	38.10%	38.10%	38.10%	38.10%
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/((1-Line 10))	73,757,094	6,087,625	3,751,225	83,595,944
Expenses				
12) Expenses				
13) Customer Accounts	473,145,967	612,896,906	18,171,370	1,104,214,243
14) Cust. Service & Info and Sales Expense	-	-	8,898,140	8,898,140
15) Total Expenses	473,145,967	612,896,906	31,016,340	1,117,059,213
Revenue Requirement				
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	713,154,261	632,706,262	43,222,964	1,389,083,487
17) Less: Adjusted Surcharge & Other Revenues	(8,132,457)	(68,267,405)	822,063	(75,577,799)
19) Production Related Income Tax Adjustment	-	-	-	-
20) Out of Period Income Tax Adjustment	(1,504,052)	(110,704)	(110,022)	(1,724,778)
21) REVENUE REQUIREMENT @ 8.13%	703,517,752	564,328,153	43,935,005	1,311,780,910
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	15,443,460	1,271,301	792,589	17,507,350
23) TOTAL REVENUE REQUIREMENT	718,961,212	565,599,454	44,727,594	1,329,288,260



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

E-32 TOU (0-100 kW)				
	Demand Related	Energy Related	Customer Related	Total D/E/C
Rate Base				
1) Rate Base (excluding Cust. Advances & Deposits)	5,272,300	448,852	321,305	6,042,457
2) Customer Accounts	-	-	30,767	30,767
3) Cust. Service & Info and Sales Expense	-	-	9,860	9,860
4) Customer Deposits	(88,334)	(7,520)	(6,064)	(101,918)
5) Customer Advances	(121,017)	-	(18,610)	(139,627)
6) Total Rate Base	5,062,950	441,331	337,259	5,841,540
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%	8.13%
8) Return on Rate Base (Line 7 * Line 6)	411,618	35,880	27,419	474,917
Computation of Income Taxes				
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%	2.27%
10) Tax Rate	38.10%	38.10%	38.10%	38.10%
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/((1-Line 10))	182,614	15,918	12,164	210,696
Expenses				
12) Expenses	1,190,770	1,469,659	64,945	2,725,374
13) Customer Accounts	-	-	26,287	26,287
14) Cust. Service & Info and Sales Expense	-	-	11,324	11,324
15) Total Expenses	1,190,770	1,469,659	102,556	2,762,985
Revenue Requirement				
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	1,785,002	1,521,457	142,140	3,448,599
17) Less: Adjusted Surcharge & Other Revenues	(20,950)	(174,926)	1,992	(193,884)
18) Production Related Income Tax Adjustment	-	-	-	-
19) Out of Period Income Tax Adjustment	(7,744)	(675)	(516)	(8,935)
21) REVENUE REQUIREMENT @ 8.13%	1,756,307	1,345,856	143,616	3,245,780
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	38,174	3,328	2,543	44,045
23) TOTAL REVENUE REQUIREMENT	1,794,482	1,349,184	146,159	3,289,825



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

	Demand Related	Energy Related	Customer Related	Total D/E/C
E-32 TOU (101-400 kW)				
Rate Base				
1) Rate Base (excluding Cust. Advances & Deposits)	9,623,859	876,822	381,090	10,881,771
2) Customer Accounts	-	-	5,926	5,926
3) Cust. Service & Info and Sales Expense	-	-	1,899	1,899
4) Customer Deposits	(147,357)	(13,428)	(5,955)	(166,738)
5) Customer Advances	(202,050)	-	(26,574)	(228,624)
6) Total Rate Base	9,274,452	863,396	356,386	10,494,234
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%	8.13%
8) Return on Rate Base (Line 7 * Line 6)	754,013	70,194	28,974	853,181
Computation of Income Taxes				
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%	2.27%
10) Tax Rate	38.10%	38.10%	38.10%	38.10%
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/(1-Line 10)	334,517	31,142	12,854	378,513
Expenses				
12) Expenses	2,151,470	2,889,964	93,440	5,134,874
13) Customer Accounts	-	-	5,063	5,063
14) Cust. Service & Info and Sales Expense	-	-	10,409	10,409
15) Total Expenses	2,151,470	2,889,964	108,913	5,150,347
Revenue Requirement				
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	3,239,999	2,991,299	150,742	6,382,040
17) Less: Adjusted Surcharge & Other Revenues	(38,099)	(347,183)	3,737	(381,544)
19) Production Related Income Tax Adjustment	-	-	-	-
20) Out of Period Income Tax Adjustment	(9,931)	(925)	(382)	(11,237)
21) REVENUE REQUIREMENT @ 8.13%	3,191,969	2,643,192	154,097	5,989,259
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	69,643	6,483	2,676	78,802
23) TOTAL REVENUE REQUIREMENT	3,261,612	2,649,675	156,773	6,068,061



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

E-32 TOU (401+ kW)									
Rate Base					Demand Related	Energy Related	Customer Related	Total D/E/C	
1) Rate Base (excluding Cust. Advances & Deposits)					30,610,953	2,983,925	321,352	33,916,230	
2) Customer Accounts					-	-	4,465	4,465	
3) Cust. Service & Info and Sales Expense					-	-	1,431	1,431	
4) Customer Deposits					(459,065)	(44,749)	(4,908)	(508,722)	
5) Customer Advances					(629,758)	-	(68,121)	(697,879)	
6) Total Rate Base					29,522,130	2,939,176	254,220	32,715,525	
7) Retail Earned ROR @ 8.13%					8.13%	8.13%	8.13%	8.13%	
8) Return on Rate Base (Line 7 * Line 6)					2,400,149	238,955	20,668	2,659,772	
Computation of Income Taxes									
9) Weighted Cost of Long Term Debt					2.27%	2.27%	2.27%	2.27%	
10) Tax Rate					38.10%	38.10%	38.10%	38.10%	
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/(1-Line 10)					1,064,823	106,012	9,169	1,180,004	
Expenses									
12) Expenses					6,978,769	9,599,267	68,224	16,646,260	
13) Customer Accounts					-	-	3,815	3,815	
14) Cust. Service & Info and Sales Expense					-	-	33,062	33,062	
15) Total Expenses					6,978,769	9,599,267	105,101	16,683,137	
Revenue Requirement									
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)					10,443,741	9,944,234	134,938	20,522,913	
17) Less: Adjusted Surcharge & Other Revenues					(120,208)	(1,159,278)	13,928	(1,265,558)	
19) Production Related Income Tax Adjustment					-	-	-	-	
20) Out of Period Income Tax Adjustment					(25,577)	(2,546)	(220)	(28,344)	
21) REVENUE REQUIREMENT @ 8.13%					10,297,956	8,782,410	148,646	19,229,011	
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"					220,644	21,967	1,900	244,511	
23) TOTAL REVENUE REQUIREMENT					10,518,600	8,804,377	150,546	19,473,523	



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

	Demand Related	Energy Related	Customer Related	Total D/E/C
E-32 (101-400 kW)				
Rate Base				
1) Rate Base (excluding Cust. Advances & Deposits)	509,869,872	39,263,095	8,558,730	557,691,697
2) Customer Accounts	-	-	343,475	343,475
3) Cust. Service & Info and Sales Expense	-	-	110,071	110,071
4) Customer Deposits	(6,970,284)	(536,754)	(123,204)	(7,630,243)
5) Customer Advances	(9,566,931)	-	(905,814)	(10,472,745)
6) Total Rate Base	493,332,657	38,726,341	7,983,258	540,042,256
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%	8.13%
8) Return on Rate Base (Line 7 * Line 6)	40,107,945	3,148,451	649,039	43,905,435
Computation of Income Taxes				
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%	2.27%
10) Tax Rate	38.10%	38.10%	38.10%	38.10%
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/(1-Line 10)	17,793,829	1,396,806	287,945	19,478,580
Expenses				
12) Expenses	112,833,208	132,572,640	1,787,074	247,192,922
13) Customer Accounts	-	-	293,460	293,460
14) Cust. Service & Info and Sales Expense	-	-	547,753	547,753
15) Total Expenses	112,833,208	132,572,640	2,628,287	248,034,136
Revenue Requirement				
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	170,734,982	137,117,898	3,565,271	311,418,151
17) Less: Adjusted Surcharge & Other Revenues	(1,989,293)	(15,786,190)	238,630	(17,536,853)
19) Production Related Income Tax Adjustment	-	-	-	-
20) Out of Period Income Tax Adjustment	(431,951)	(33,908)	(6,990)	(472,849)
21) REVENUE REQUIREMENT @ 8.13%	168,313,739	121,297,799	3,796,911	293,408,449
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	3,729,089	292,731	60,345	4,082,166
23) TOTAL REVENUE REQUIREMENT	172,042,828	121,590,531	3,857,256	297,490,615

ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year



	Demand Related	Energy Related	Customer Related	Total D/E/C
E-32 (401+ kW)				
Rate Base				
1) Rate Base (excluding Cust. Advances & Deposits)	436,355,622	39,916,656	4,627,086	480,899,365
2) Customer Accounts	-	-	73,955	73,955
3) Cust. Service & Info and Sales Expense	-	-	23,700	23,700
4) Customer Deposits	(6,005,991)	(549,412)	(65,031)	(6,620,434)
5) Customer Advances	(8,244,794)	-	(843,484)	(9,088,278)
6) Total Rate Base	422,104,838	39,367,244	3,816,226	465,288,308
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%	8.13%
8) Return on Rate Base (Line 7 * Line 6)	34,317,123	3,200,557	310,259	37,827,939
Computation of Income Taxes				
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%	2.27%
10) Tax Rate	38.10%	38.10%	38.10%	38.10%
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/(1-Line 10)	15,224,740	1,419,922	137,646	16,782,308
Expenses				
12) Expenses	97,405,649	148,942,794	921,351	247,269,794
13) Customer Accounts	-	-	63,187	63,187
14) Cust. Service & Info and Sales Expense	-	-	431,744	431,744
15) Total Expenses	97,405,649	148,942,794	1,416,281	247,764,724
Revenue Requirement				
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	146,947,512	153,563,274	1,864,186	302,374,972
17) Less: Adjusted Surcharge & Other Revenues	(1,703,330)	(15,841,949)	199,064	(17,346,215)
19) Production Related Income Tax Adjustment	-	-	-	-
20) Out of Period Income Tax Adjustment	(212,251)	(19,795)	(1,919)	(233,965)
21) REVENUE REQUIREMENT @ 8.13%	145,031,931	137,701,530	2,061,331	284,794,791
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	3,165,275	295,207	28,617	3,489,099
23) TOTAL REVENUE REQUIREMENT	148,197,206	137,996,736	2,089,948	288,283,890



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

	Demand Related	Energy Related	Customer Related	Total D/E/C
E-34				
Rate Base				
1) Rate Base (excluding Cust. Advances & Deposits)	99,453,863	9,826,860	446,036	109,726,559
2) Customer Accounts	-	-	2,273	2,273
3) Cust. Service & Info and Sales Expense	-	-	728	728
4) Customer Deposits	(1,260,355)	(124,534)	(5,691)	(1,390,579)
5) Customer Advances	(1,732,584)	-	(179,017)	(1,911,601)
6) Total Rate Base	96,460,723	9,702,326	264,330	106,427,380
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%	8.13%
8) Return on Rate Base (Line 7 * Line 6)	7,842,257	788,799	21,490	8,652,546
Computation of Income Taxes				
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%	2.27%
10) Tax Rate	38.10%	38.10%	38.10%	38.10%
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/((1-Line 10))	3,479,205	349,950	9,534	3,838,689
Expenses				
12) Expenses	22,875,496	37,992,755	124,629	60,992,881
13) Customer Accounts	-	-	1,942	1,942
14) Cust. Service & Info and Sales Expense	-	-	85,597	85,597
15) Total Expenses	22,875,496	37,992,755	212,168	61,080,420
Revenue Requirement				
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	34,196,958	39,131,504	243,192	73,571,655
17) Less: Adjusted Surcharge & Other Revenues	(367,955)	(3,884,464)	41,546	(4,210,872)
19) Production Related Income Tax Adjustment	-	-	-	-
20) Out of Period Income Tax Adjustment	(23,306)	(2,344)	(64)	(25,714)
21) REVENUE REQUIREMENT @ 8.13%	33,805,698	35,244,696	284,674	69,335,068
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	720,435	72,464	1,974	794,873
23) TOTAL REVENUE REQUIREMENT	34,526,133	35,317,160	286,648	70,129,941



ARIZONA PUBLIC SERVICE COMPANY
Functionalized Revenue Requirement
2015 Test Year

	Demand Related	Energy Related	Customer Related	Total D/E/C
E-35				
Rate Base				
1) Rate Base (excluding Cust. Advances & Deposits)	212,216,895	26,194,759	649,762	239,061,415
2) Customer Accounts	-	-	3,410	3,410
3) Cust. Service & Info and Sales Expense	-	-	1,093	1,093
4) Customer Deposits	(2,931,680)	(361,869)	(9,038)	(3,302,587)
5) Customer Advances	(4,028,668)	-	(509,695)	(4,538,363)
6) Total Rate Base	205,256,547	25,832,890	135,531	231,224,968
7) Retail Earned ROR @ 8.13%	8.13%	8.13%	8.13%	8.13%
8) Return on Rate Base (Line 7 * Line 6)	16,687,357	2,100,214	11,019	18,798,590
Computation of Income Taxes				
9) Weighted Cost of Long Term Debt	2.27%	2.27%	2.27%	2.27%
10) Tax Rate	38.10%	38.10%	38.10%	38.10%
11) Income Taxes ((Line 7-Line 9)(Line 6)(Line 10))/((1-Line 10))	7,403,321	931,757	4,888	8,339,966
Expenses				
12) Expenses	50,715,126	105,139,308	206,891	156,061,325
13) Customer Accounts	-	-	2,913	2,913
14) Cust. Service & Info and Sales Expense	-	-	158,189	158,189
15) Total Expenses	50,715,126	105,139,308	367,993	156,222,427
Revenue Requirement				
16) Return, Income Taxes, and Expenses (Line 8 + Line 11 + Line 15)	74,805,804	108,171,278	383,900	183,360,983
17) Less: Adjusted Surcharge & Other Revenues	(760,698)	(10,205,356)	77,532	(10,888,522)
19) Production Related Income Tax Adjustment	-	-	-	-
20) Out of Period Income Tax Adjustment	35,839	4,511	24	40,374
21) REVENUE REQUIREMENT @ 8.13%	74,080,946	97,970,433	461,456	172,512,834
22) ALLOCATION AND FUNCTIONALIZATION OF "FAIR VALUE INCREMENT"	1,513,215	190,448	999	1,704,662
23) TOTAL REVENUE REQUIREMENT	75,594,160	98,160,881	462,455	174,217,497

**BEFORE THE
ARIZONA CORPORATION COMMISSION**

IN THE MATTER OF THE APPLICATION OF)	
ARIZONA PUBLIC SERVICE COMPANY FOR)	
A HEARING TO DETERMINE THE FAIR VALUE)	
OF THE UTILITY PROPERTY OF THE COMPANY)	Docket No. E-01345A-16-0036
FOR RATEMAKING PURPOSES, TO FIX A JUST)	
AND REASONABLE RATE OF RETURN)	
THEREON, TO APPROVE RATE SCHEDULES)	
DESIGNED TO DEVELOP SUCH RETURN)	

EXHIBIT__(SJB-3)

OF

STEPHEN J. BARON

(COST OF SERVICE AND RATE DESIGN)

**ON BEHALF OF THE
KROGER CO.**

2015 TY Cost of Service (Adjusted)
CORRECTED FOR AG-1 ALLOCATION

E-221 (Water Pumping) STREET LIGHTING DUSK TO DAWN

Line #		TOTAL RETAIL	RESIDENTIAL	GENERAL SERVICE	E-221 (Water Pumping)	STREET LIGHTING	DUSK TO DAWN
1	SUMMARY OF RESULTS						
2							
3							
4	DEVELOPMENT OF RATE BASE						
5	ELECTRIC PLANT IN SERVICE	12,962,340,167	8,099,051,086	4,554,642,478	122,239,266	133,850,295	52,557,042
6	GENERAL & INTANGIBLE PLANT	1,400,428,100	913,116,365	464,146,198	11,777,669	7,325,948	4,061,919
7	LESS: RESERVE FOR DEPRECIATION	(5,632,319,059)	(3,511,914,008)	(2,002,097,799)	(52,785,504)	(47,533,720)	(17,988,030)
8	OTHER DEFERRED CREDITS	(1,292,838,371)	(788,219,184)	(503,174,681)	(12,664,195)	(6,801,831)	(1,978,480)
9	WORKING CASH	(93,558,549)	(58,288,866)	(32,917,689)	(893,500)	(1,054,520)	(403,975)
10	MATERIALS, SUPPLIES & PREPAYMENTS	398,768,143	225,856,548	164,697,669	4,153,353	3,070,544	990,029
11	ACCUM. DEFERRED TAXES	(2,359,729,334)	(1,503,979,442)	(796,946,649)	(21,719,932)	(26,263,829)	(10,819,481)
12	REGULATORY ASSETS	250,199,222	181,817,468	63,623,483	1,701,159	1,762,326	1,294,787
13	DECOMMISSIONING FUND	731,225,942	434,549,532	285,200,677	7,291,629	3,632,160	551,943
14	MISCELLANEOUS DEFERRED DEBITS	113,265,656	71,286,870	40,082,726	1,006,098	594,776	295,186
15	OPEB	168,753,227	110,070,359	55,890,824	1,418,175	882,962	490,906
16	CUSTOMER ADVANCES	(94,903,242)	(44,764,989)	(138,265)	(149,058)	(149,058)	(149,058)
17	CUSTOMER DEPOSITS	(72,621,690)	(38,578,117)	(32,616,324)	(706,920)	(511,132)	(209,197)
18	PROFORMA ADJUSTMENTS	292,140,717	183,596,173	101,925,712	2,494,009	2,808,171	1,316,652
19							
20	TOTAL RATE BASE	6,771,150,929	4,288,514,539	2,317,691,636	63,173,042	71,613,092	30,158,619
21							
22	DEVELOPMENT OF RETURN						
23	BASE REVENUES FROM RATES	2,865,563,427	1,468,282,584	1,338,700,733	29,014,733	20,979,131	8,586,247
24	PROFORMA TO BASE REVENUES FROM RATES	23,340,145	18,295,059	5,225,164	(275,293)	103,126	(7,912)
25	SURCHARGE & OTHER ELECTRIC REVENUES	570,735,507	316,626,510	243,272,570	7,471,258	2,579,858	785,311
26	PROFORMA SURCHARGE & OTHER ELECTRIC REV	(412,186,408)	(236,557,673)	(167,694,771)	(5,688,761)	(1,688,665)	(576,518)
27	TOTAL OPERATING REVENUES	3,047,452,871	1,566,646,481	1,419,503,695	30,541,917	21,973,450	8,787,128
28							
29	OPERATING EXPENSES						
30	OPERATION & MAINTENANCE	1,927,831,998	1,014,320,986	878,388,291	23,380,833	9,302,638	2,439,251
31	ADMINISTRATIVE & GENERAL	176,678,975	115,813,168	57,912,664	1,473,481	946,786	532,876
32	DEPRECIATION & AMORT EXPENSE	402,496,860	252,267,709	141,405,047	3,731,763	3,614,227	1,478,115
33	AMORTIZATION ON GAIN	(4,601,933)	(2,729,002)	(1,800,581)	(45,991)	(22,882)	(3,477)
34	REGULATORY ASSETS	17,910,882	10,643,995	6,985,797	178,603	88,967	13,519
35	PROFORMA ADJUSTMENTS	(22,711,447)	11,932,944	(33,700,808)	(1,479,038)	442,431	183,024
36	TAXES OTHER THAN INCOME	139,364,353	88,501,094	47,275,162	1,289,515	1,633,384	685,199
37	INCOME TAX	239,848,746	81,118,519	152,974,943	1,943,242	2,451,353	1,360,689
38	PROFORMA INCOME TAX ADJUSTMENTS	(143,688,866)	(89,844,530)	(50,975,791)	(1,739,451)	(815,695)	(313,428)
39	TOTAL OPERATING EXPENSES	2,753,149,538	1,482,024,882	1,198,374,723	28,732,956	17,641,209	6,375,768
40							
41	OPERATING INCOME	314,303,133	84,621,599	221,128,972	1,808,961	4,332,241	2,411,360
42							
43	RATE OF RETURN (PRESENT)	4.64%	1.97%	9.54%	2.86%	6.05%	8.00%
44							
45	INDEX RATE OF RETURN (PRESENT)	0.95	0.40	1.95	0.59	1.24	1.63

2015 TY Cost of Service (Adjusted)
CORRECTED FOR AG-1 ALLOCATION

Line #

SUMMARY OF RESULTS

2015 TY Cost of Service (Adjusted) CORRECTED FOR AG-1 ALLOCATION											
Line #	TOTAL GENERAL SVC	E-20 (Church Rate)	E-32 TOU (0- 100 kW)	E-32 TOU (101- 400 kW)	E-32 TOU (401+ kW)	School TOU	E-30, E-32 (0-100 kW)	E-32 (101-400 kW)	E-32 (401+ kW)	E-34	E-35
1											
2	SUMMARY OF RESULTS										
3											
4	DEVELOPMENT OF RATE BASE										
5	4,554,642,478	35,879,010	11,427,670	20,584,527	64,756,490	58,758,131	1,698,623,772	1,072,049,524	921,309,172	211,511,618	458,742,564
6	464,146,198	3,096,645	1,201,647	2,129,615	6,436,253	4,973,372	183,186,887	101,103,699	90,080,364	21,631,237	50,306,479
7	(2,002,097,799)	(15,470,138)	(4,994,916)	(9,037,865)	(28,494,203)	(25,311,933)	(742,135,274)	(466,327,998)	(404,726,918)	(95,092,278)	(210,506,576)
8	(503,174,681)	(3,176,214)	(1,261,919)	(2,344,793)	(7,577,244)	(5,563,302)	(174,838,524)	(115,346,964)	(105,632,714)	(25,812,080)	(61,620,927)
9	(32,917,688)	(269,576)	(82,118)	(147,940)	(467,074)	(440,691)	(12,247,505)	(7,841,230)	(6,673,441)	(1,517,859)	(3,230,853)
10	164,697,669	859,954	422,710	794,989	2,609,248	1,654,020	54,660,014	38,122,227	35,861,366	8,596,074	21,117,046
11	(796,046,649)	(6,677,659)	(2,000,773)	(3,558,009)	(11,039,550)	(10,695,404)	(306,382,300)	(187,893,232)	(158,195,207)	(35,716,544)	(74,797,369)
12	63,623,483	545,521	171,513	275,748	714,988	743,620	31,108,115	12,939,718	10,319,839	2,289,123	4,515,297
13	285,200,677	2,188,437	687,285	1,281,536	4,183,938	3,652,953	98,600,144	67,083,645	59,438,957	14,638,660	33,445,123
14	40,082,726	238,784	103,947	187,843	582,662	406,307	15,032,013	8,824,866	8,076,128	1,950,371	4,679,805
15	55,890,824	372,625	144,745	256,465	774,820	598,328	22,071,526	12,169,993	10,843,402	2,603,520	6,055,400
16	(44,764,989)	(141,280)	(139,627)	(228,624)	(697,879)	(375,081)	(17,171,511)	(10,472,745)	(9,088,278)	(1,911,601)	(4,538,363)
17	(32,616,324)	(101,767)	(101,918)	(166,738)	(508,722)	(272,140)	(12,521,197)	(7,630,243)	(6,620,434)	(1,300,579)	(3,302,587)
18											
19	101,925,712	726,988	282,993	468,079	1,441,798	1,194,666	39,266,492	23,260,994	20,296,055	4,647,718	10,359,928
20	2,317,691,636	18,071,328	5,841,540	10,464,234	32,715,525	29,333,446	878,252,653	540,042,255	485,288,308	106,427,380	231,224,968
21											
22	DEVELOPMENT OF RETURN										
23	1,338,700,733	4,176,910	4,183,101	6,843,561	20,879,912	11,169,689	513,918,578	313,174,826	271,728,356	57,074,785	135,551,017
24	5,225,164	(107,647)	(15,824)	(69,241)	(334,450)	175,286	(2,421,390)	(4,532,152)	2,082,092	2,766,532	7,682,056
25	243,272,570	1,080,040	794,726	1,184,024	3,141,198	2,347,068	103,074,992	57,784,217	42,240,994	9,760,280	21,865,031
26	(167,694,771)	(831,475)	(600,842)	(802,479)	(1,875,640)	(1,753,226)	(80,163,049)	(40,247,364)	(24,894,779)	(5,549,408)	(10,976,510)
27	1,419,503,695	4,317,828	4,361,161	7,155,864	21,811,020	11,938,817	534,409,031	326,179,528	291,156,663	64,052,189	154,121,595
28											
29	OPERATING EXPENSES										
30	878,388,291	3,530,403	2,344,413	4,272,808	13,879,336	7,779,518	294,781,938	201,949,484	189,518,953	45,747,203	114,584,237
31	57,912,664	391,904	150,079	265,032	797,201	624,691	23,054,380	12,594,649	11,172,043	2,675,339	6,187,346
32	141,405,047	1,048,365	357,655	644,361	2,018,088	1,727,203	52,921,068	32,711,099	28,530,249	6,641,891	14,805,049
33	(1,800,581)	(13,687)	(4,345)	(8,107)	(26,488)	(22,922)	(621,071)	(423,373)	(375,914)	(92,580)	(212,093)
34	6,985,797	53,604	16,835	31,390	102,483	89,477	2,415,143	1,643,168	1,455,917	368,564	819,216
35	(33,790,808)	(75,350)	(169,697)	(185,670)	(406,494)	(110,675)	(21,160,487)	(8,628,924)	(3,800,851)	1,732	725,608
36	47,275,162	382,023	119,764	213,183	661,837	618,446	18,112,874	11,137,510	9,440,218	2,116,235	4,473,071
37	152,974,943	(201,694)	711,248	907,277	2,239,799	785,467	78,975,300	37,953,533	24,432,219	2,696,724	4,475,068
38	(50,975,791)	(334,156)	(178,101)	(280,009)	(717,185)	(575,961)	(24,345,960)	(14,267,248)	(7,593,869)	(1,117,049)	(1,596,252)
39	1,198,374,723	4,781,411	3,347,851	5,880,284	18,548,579	10,915,244	424,133,184	274,669,898	252,808,964	59,028,058	144,261,249
40											
41	221,128,972	(463,583)	1,013,310	1,275,580	3,262,441	1,023,574	110,275,847	51,509,629	38,347,698	5,024,131	9,860,345
42											
43	RATE OF RETURN (PRESENT)										
44	9.54%	(2.57%)	17.35%	12.16%	9.97%	3.49%	12.56%	9.54%	8.24%	4.72%	4.26%
45	INDEX RATE OF RETURN (PRESENT)										
46	1.95	(0.52)	3.54	2.48	2.04	0.71	2.57	1.95	1.68	0.96	0.87